SYSTRA

frontier economics

EVALUATION OF THE FIRST 10 MONTHS OF THE £2 BUS FARE CAP

A report prepared for the Department for Transport

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CONTENTS

Evidence Summary

The £2 Bus Fare Cap (£2BFC) was launched by the Department for Transport (DfT) on 1 January 2023 and will run to the end of 2024. It had two primary aims: to reduce the cost of living, particularly for low-income households, by reducing the cost of travel, and to support recovery in bus patronage by simplifying and reducing the cost of travel and increasing passenger confidence. It operates across England (outside London) with bus operators participating on a voluntary basis and caps single tickets at £2.

This report presents an evaluation of the impacts of the scheme over its first 10 months (January to October 2023). The main findings are:

- **The scheme contributed approximately a 5% increase in bus patronage, out of a total 13% patronage increase** outside of London from January to October 2023 compared to the same period in the previous year. The overall patronage increase will reflect a mix of factors including continued post-pandemic recovery and the impact of other local transport-related investments and interventions delivered during this period.[1]
- **The savings vary significantly across passengers.** Prior to this scheme, the majority of bus trips were made using concessionary travel passes or period tickets (daily, weekly, monthly and other tickets that were not singles or returns), with an average fare below £2. However, the average cost per trip masks the significant variation in bus ticket prices, and therefore the savings associated with the £2BFC vary significantly by individual.
- **The scheme has supported the cost of living by reducing travel costs.** Bus operator data suggests that the £2BFC has led to a 27% reduction in the price of single tickets which cost more than £2 before £2BFC was introduced (although it should be noted that these make up less than half of total pre-£2BFC bus trips). The survey carried out for this evaluation suggests that 67%–73% of people who would have travelled using a different transport mode before the fare cap have saved on their travel costs due to the £2BFC. Those on lower incomes have generally seen a greater positive financial impact.
- **The impact of the scheme varies across passengers.** The main beneficiaries are likely to be people who used single tickets prior to the scheme and would have made their bus journeys even without the £2BFC. There are also benefits for those making new trips due to the lower cost of bus travel, the majority of whom are likely to have shifted from the car. The survey responses suggest that 16–24 year olds, urban populations and frequent bus users have tended to benefit the most from the £2BFC by undertaking more journeys since the introduction of the scheme and/or perceiving a positive impact of the scheme on various journey purposes and activities.

[1] This is based on an econometric analysis of indexed rather than absolute patronage which measures patronage relative to a pre-pandemic point in time, e.g. 78% of a pre-COVID baseline. The analysis compares the % change in this index in London, where the £2BFC did not apply, to England (excluding London), where it did. It finds that the change in indexed patronage was higher in England (excluding London) than it was in London over the same period following the introduction of the £2BFC. See Annex E for further details.

- **The value for money of the £2BFC is challenging to assess, though can reasonably be considered 'low' VfM[2] (i.e. BCR above 1) after accounting for the additional benefits that are not possible to quantify.** The preliminary benefit–cost ratio (BCR) is estimated to be 0.71–0.9, although this does not include all the benefits of the scheme. Fieldwork suggests these include the savings to people who switch modes to buses and the wellbeing benefits of reducing the cost of bus travel for all passengers who would have used the bus even without the fare cap. There are also distributional impacts. Preliminary analysis of the potential scale of the wellbeing effects alone suggests it is reasonable to believe the BCR is at least above 1 (categorised as low VfM).

[2] This categorisation is based on the DfT Guidance: DfT (2016) Value for Money Supplementary Guidance on Categories, available at https://assets.publishing.service.gov.uk/media/5f62378bd3bf7f7232e7e6d9/value-for-money-supplementary-guidance-on-categories.pdf

1 Summary of findings

Introduction

The £2 Bus Fare Cap (£2BFC) was launched by the Department for Transport (DfT) on 1 January 2023. It had two primary aims: to reduce the cost of living, particularly for low-income households, by reducing the cost of travel, and to support recovery in bus patronage by simplifying and reducing the cost of travel and increasing passenger confidence. The scheme also had wider objectives to support the National Bus Strategy (NBS)[3] goals of modal shift, with associated benefits related to congestion, air quality and carbon emissions.

The scheme was originally due to run until 31 March 2023 but has since been extended several times. It will now continue until 31 December 2024.[4] Between 1 January 2023 and 31 December 2024, bus operators can voluntarily implement a £2 cap on eligible single tickets. Some types of routes are not covered by the scheme. These include coach services, school-only services and airport services. Routes in London, Greater Manchester and West Yorkshire are also excluded as fares are already capped in these areas.

The £2BFC is being delivered in several phases (see figure below). However, this report only looks at the first 10 months. Adjustments to the reimbursement and eligibility criteria have been made by DfT between each phase.

Phases of the £2BFC scheme

Source: Frontier Economics

DfT asked Frontier Economics and SYSTRA to carry out an independent evaluation of the £2BFC. This report presents the process, impact and value for money (VfM) evaluation of the first 10 months of the scheme.

It is important to note that the scheme is still ongoing and is currently due to continue until 31 December 2024. This means that the impacts of the scheme may continue to evolve over time.

[3] DfT(2021). Bus back better. A long-term strategy for buses in England, outside London

[4] DfT, Prime Minister's Office (2023). Government extends £2 bus fare cap and protects vital services. Accessed at: https://www.gov.uk/government/news/government-extends-2-bus-fare-cap-and-protects-vital-services

Context in which the £2BFC has been implemented

The £2BFC is being delivered at the same time as several other transport interventions. These include bus-specific schemes delivered under the Phase 1 Bus Service Improvement Plans (Phase 1 BSIP); the BSIP+ scheme, which aims to support and protect bus services; the Bus Service Operators grant plus (BSOG+) scheme; and the Rural Mobility Fund (RMF), which provides funding to trial on-demand bus services in rural or suburban areas of England.

There are also several concurrent schemes that target transport more broadly. These include improvements to bus services, alongside other modes such as the City Region Sustainable Transport Settlements (CRSTS) funding for Mayoral Combined Authorities (MCAs). More widely, there are several ongoing and major investment programmes designed to achieve the aims of the Levelling Up White Paper,[5] many of which involve projects to improve transport systems. Alongside this, bus operators are able to set their own bus fares and adjust those fares at any time – this will also affect the cost of living and patronage outcomes on which £2BFC focuses.

In this context, it can be challenging to isolate the impact of the £2BFC. This evaluation aims to account for this by taking a mixed-methods approach which considers evidence generated using a range of evaluation methods. However, as it is not possible to completely strip out the impact of wider changes, these findings should be interpreted as indicative of the impact and VfM of the £2BFC.

Evaluation approach and data used

A mixed-methods approach has been used in the process and impact evaluation. This brings together evidence generated across a range of data sources and evaluation methodologies to reach an overall estimate of the likely impact of the scheme over the first 10 months, along with learnings on how the scheme has been delivered.

The evaluation approaches used include quantitative trend analysis of primary and secondary data, quasi-experimental econometric analysis and theory-based contribution analysis. The results of the impact evaluation are then used to inform the VfM assessment using established transport analysis guidance (TAG) and Green Book guidance.[6] The following data sources were used to inform the analysis:

- **Ticketer data**. Data collected by onboard ticketing software was used to calculate % change in patronage relative to a baseline week in January 2020. It covers around 70% of the market (by patronage) although the precise market coverage varies over time with use of Ticketer software.

5 DLUHC (2022). Levelling up the United Kingdom. Accessed at: https://www.gov.uk/government/publications/levelling-up-the-united-kingdom

6 HMT (2022). The Green Book. Accessed at: https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government/the-green-book-2020

- **Transport for London (TfL) data**. Data collected by TfL on patronage on public transport in London, including London buses. Like the Ticketer software, this data is collected at a daily frequency.
- **Operator data**. Bus operators submitted monthly data on ticket sales and associated revenues across individual ticket types for 2022 and for January to October 2023.
- **National panel survey (four waves)**. Four waves of a bespoke national panel survey, each with a sample of around 4,000 bus users and non-users, were undertaken to inform this evaluation. The first wave was in December 2022 before the scheme started, the second wave was in the first two weeks of February 2023, the third wave was in November 2023 and the fourth wave was in January 2024. While this evaluation looks specifically at the impacts of the £2BFC in the first 10 months of its operation (January to October 2023), findings from all four waves are used to inform the analysis in order to maximise learnings.
- **Stakeholder interviews**. Twenty stakeholder interviews were carried out with participating operators and one organisation which represented the wider bus industry.
- **Focus groups.** Two online focus groups were also carried out with 16 members of the public in February 2024. All participants had used the bus outside of London since the introduction of the £2BFC, and quotas were set to ensure a good mix of age and gender.
- **Online workshop.** To inform the process evaluation, an online workshop was held with members of the DfT policy and commercial teams who were involved in the delivery of the £2BFC.

Operator participation

Operator participation, which was voluntary, remained largely unchanged over the first 10 months of the £2BFC (Phases 1 to 3). In Phase 1, 148 bus operators, representing around 90% of the total market (by patronage), voluntarily joined the scheme. Since then, nine operators have left the scheme due to withdrawal of services, non-eligibility or exit from the market. Three operators have withdrawn voluntarily from the scheme. At the same time, eight operators have joined the scheme. As of Phase 3 of the scheme, which ran from July to October 2023, there were 144 participating bus operators.

Expected impacts of the £2BFC

According to data reported by bus operators, the estimated average cost of a single bus ticket prior to the introduction of the £2BFC was £2.15–£2.47.[7] This means that, on average, the £2BFC could be expected to offer a saving for passengers who already make journeys using single tickets of £0.15 to £0.47 per trip. However, the cost of a single bus ticket varies

[7] Data from operators suggests that the average cost of a single bus ticket on routes eligible for the £2BFC in 2022 was £2.15. TAS also carried out a National Bus Fare Survey which found that the average cost of an adult bus fare in 2022 was £2.47, although it should be noted that the TAS survey covers the whole of the UK and not just routes eligible for the £2BFC – TAS Partnership (2023). 7th TAS National Bus Fares Survey: 2022.

significantly across the country. The National Bus Fares Survey (TAS Partnership, 2023), for example, found that, for a three-mile trip, the cost of an adult single ranged from £0.90 to £4.50.[8]

Data from bus operators suggests that, prior to the introduction of the scheme, around 40% of all trips were on single or return tickets. Official statistics also show that in the year ending 2022, there were 8.7 million older and disabled concessionary travel passes in England, and 326 million concessionary journeys in England excluding London.[9] This means that the majority of bus trips were made using daily, weekly and monthly period tickets, concessionary travel passes or ticket types other than singles or returns. While the absolute price of most of these tickets is higher than the price of a single or a return, data from operators suggests that the average cost per trip is lower than £2, and therefore those passengers would not be expected to be impacted by the £2BFC. As with single tickets, the average cost of these period tickets varies significantly across the country, with the National Bus Fares Survey (TAS Partnership, 2023) finding that the cost of a weekly ticket ranged from £9.60 to £43. Based on data from operators, the average cost per trip on weekly tickets over the period from January to October 2022 was £1.46.

The level of pre-intervention bus fares means that the £2BFC would be expected to generate savings primarily for those who were already travelling using a single or return bus ticket, and that this saving would likely vary significantly across the country.

The scheme could also change ticket purchase behaviour where the price of a single ticket is reduced below the cost of period tickets. However, this effect would be limited because the average cost of a trip using a daily, weekly or monthly ticket was already below £2 prior to the introduction of the scheme. The perceived benefits to passengers of switching from a period to a single ticket is likely to vary significantly across individuals and will depend on both the price of their period ticket and the number of trips they make using that ticket.

In addition to direct savings for existing bus users, where individuals use these savings to improve their overall life satisfaction, this could lead to wider wellbeing benefits.

Finally, the scheme could be expected to shift people from other modes of transport towards the bus or encourage them to make trips they might not otherwise have made.

The impacts of the £2BFC on patronage over the first 10 months of the scheme

The scheme appears to have had a positive impact on bus patronage. Indicative analysis suggests that the £2BFC led to an approximate **5% increase in patronage recovery** outside of London from January to October 2023 compared to the same period in the previous year, out of a total observed 13% increase over that period. The total change in overall patronage will reflect a mix of factors including continued post-pandemic recovery and the impact of other local transport-related investments and interventions delivered during this period.

8 Ibid.

9 DfT (2023). Concessionary travel statistic, England: year ending March 2022. Concessionary travel statistics, England: year ending March 2022 – GOV.UK (www.gov.uk)

Given the data limitations, this is an indicative estimate.[10] However, these findings are supported by the national panel survey, which consistently found that around 40% of respondents reported taking more journeys by bus since the introduction of the £2BFC, around 90% of whom accredited this increase in part or fully to the scheme.

The evidence suggests that the scheme has supported the cost of living by reducing travel costs. Based on data provided by operators, the £2BFC has led to a 27% reduction in the price of single tickets that had a pre-intervention cost of above £2 (although it should be noted that these make up less than half of total pre-intervention bus trips). The survey suggests that 67%–73% of people who would have travelled using a different mode to the bus before the fare cap have saved money on their overall travel costs due to the £2BFC.

The impacts of the policy are better understood when looking at who the scheme has impacted and how. The survey responses suggest that 16–24 year olds, urban populations and frequent bus users tend to benefit the most from the £2BFC by undertaking more journeys since the introduction of the scheme and/or perceiving a positive impact of the scheme on various journey purposes and activities.

There is some evidence to suggest that the scheme has had a relatively greater impact on leisure trips compared to those for education and employment. In all survey waves, respondents perceived the £2BFC to have had a greater positive influence on leisure activities and on visiting friends and relatives than on education and employment activities. Insights from the focus groups support these findings, with those who reported travelling by bus more often noting that these journeys were for leisure purposes, particularly long-distance journeys. It was felt that these longer journeys offered particularly good VfM.

There is evidence of modal shift to the bus, most commonly away from cars. Between 39% and 48% of survey respondents who said that they had made additional bus journeys following the introduction of the cap said that, without the fare cap, they would have still made those trips using a different type of transport. Of those who reported that they had changed modes of transport, this was most often away from the car and cost was a factor in deciding to make the switch to the bus.

There is evidence of ticket substitution, particularly from returns and dailies to single tickets. Based on the operator data, the estimated average cost per trip in 2022 on return, daily, weekly and monthly tickets was below £2. While this should be interpreted cautiously, as it relies on operator assumptions about the number of average trips per ticket, it provides an indication that more than half of bus trips would not be affected by the £2BFC.

However, there is a significant variation in the cost of period tickets across the country. The National Bus Fare Survey (TAS Partnership, 2023) carried out in 2022, for example, found that

[10] The econometric analysis was based on Ticketer data which includes patronage on routes that are not eligible for the scheme as they have local fare schemes. This means that the incremental impact vs. London will include the impact of these local schemes. It is also not possible to isolate the impact of other transport schemes that could have impacted patronage along eligible routes, for example improvements to bus stops installed as part of BSIP interventions. The Ticketer data also includes trips made using concessionary fares which are not impacted directly by this scheme.

the cost of a weekly ticket in the UK ranged from £9.60 to £43.[11] The number of trips made per ticket also varies across the country. The average cost per trip masks this variation and means that there may still be a proportion of people who would financially benefit from switching from using a period ticket to using £2 single tickets. There may also be non-financial benefits, such as greater flexibility or avoidance of a large upfront cost for period tickets.

This is reflected in the operator and Ticketer data. When comparing January to October 2023 to the same period in 2022, the sale of single tickets increased by 85% compared to an overall increase in patronage of 13%, which suggests that there has been a degree of ticket substitution. At the same time, reported sales of return, daily and weekly tickets fell following the introduction of the £2BFC, with the greatest fall being in the sale of return tickets (-34%) and daily tickets (-28%). This was supported by the survey results, which found that 26% to 30% of respondents (across all survey waves) stated that they had switched from period tickets to single tickets following the introduction of the £2BFC. The sale of monthly tickets actually saw an increase of 7% over the same period, which suggests limited substitutability between these longer duration tickets and single tickets.

Barriers to travelling by bus still remain for some groups. For people who did not use the bus or change their travel behaviours as a result of the £2BFC, this was because of barriers to using the bus. Focus group participants felt that reliability and frequency of routes had not significantly improved and still served as a significant barrier to bus usage. Some 14%–21% of survey participants reported that bus services did not run when or where they needed them – this barrier would therefore not be addressed by any changes in fares.

The impacts of the £2BFC on the cost of travel over the first 10 months of the scheme

The evidence suggests that the scheme has supported the cost of living by reducing travel costs. Based on the operator data, the £2BFC has led to around a 27% reduction in the average cost of single tickets that had a pre-intervention cost of above £2 (i.e. fares reduced from an average of £2.73 to £2).

Around 40% of the survey respondents reported saving money as a result of the £2BFC, with the results remaining consistent across the survey waves. Around 30% of survey respondents said that the scheme had had a positive impact on the amount of income they had for other expenses, and a similar proportion reported that it had had a positive impact on their disposable income.

Of those taking part in the focus groups, those on lower incomes and those reliant on the bus as their main form of transport, reported that the £2BFC had had a positive financial impact on them. Additionally, focus group participants from rural areas suggested that the £2BFC had significantly reduced the high cost of bus fares in rural areas, with journeys tending to be of longer distance. Due to the cost savings from the £2BFC, focus group participants noted that

[11] TAS Partnership (2023). 7th TAS National Bus Fares Survey: 2022

they were able to spend the money they had saved on purchasing fresh healthy food, social occasions and making additional journeys for leisure.

VfM of the first 10 months of the scheme

The HMT Green Book (HMT, 2022) states that for an intervention to be considered VfM it needs to meet its strategic objectives and offer benefits greater than costs. The evaluation of VfM undertaken relied on a number of assumptions and should therefore be taken as an indicative assessment of whether the £2BFC has achieved VfM.

Actual spend to date has been lower than planned even with high operator participation. The planned budget for Phases 1 to 3 of the £2BFC was £245m. Actual spend was 14% lower at £210m. In part, this could be due to the high levels of inflation built into the initial forecasts given the economic circumstances at the time. It should be noted that there has been very little change in operator participation over the course of the £2BFC and DfT estimates that operator participation is around 90% of the market in terms of patronage.

The evidence suggests that the scheme has achieved its strategic objectives. It has reduced the cost of living and has increased bus patronage (see evidence above), particularly for those on lower incomes. The main beneficiaries of the scheme are likely to be people who used single tickets prior to the scheme and would have made their bus journeys even without the £2BFC. There are also benefits for those making new trips as a result of the lower cost of bus travel, the majority of whom are likely to have shifted from other modes, mainly the car, and travel for leisure rather than work or educational purposes.

The value for money of the £2BFC is challenging to assess, though can reasonably be considered 'low' VfM (i.e. BCR above 1) after accounting for the additional benefits that are not possible to quantify. The preliminary benefit–cost ratio (BCR) is estimated to be 0.71–0.9, although this does not include all of the benefits of the scheme. For example, around 30% of survey respondents said that the scheme had had a positive impact on the amount of income they had for other expenses, and focus group participants said they spent these savings on healthier food, social occasions and leisure trips. Accounting for these wellbeing impacts, the BCR could potentially increase to at least 1. This, alongside the finding that the scheme has achieved its strategic objectives, suggests it is reasonable to believe that the scheme has delivered 'low' VfM.

More broadly, it is important to recognise that the average effects of the scheme mask how the policy is experienced by different groups. For those in higher socio-economic groups, the scheme is likely to have had a positive impact on access to all activities, whereas evidence from the focus groups and survey suggests that the scheme has had a greater financial impact on those on lower incomes, increasing the income available for other expenses, spending or saving.

Process evaluation learning on the delivery of the first 10 months of the scheme

The intended objectives of the scheme were clear from the start. Overall, DfT was satisfied with the £2BFC policy design and noted that clear objectives and processes were developed at an early stage. There was extensive engagement between DfT, operators and representative organisations during this period to reflect their views in the formation of the policy. This was reflected in feedback from operators, who had felt confident about the intended objectives of the scheme early on.

There was less clarity on the reimbursement process, and the data requirements were burdensome to some operators and DfT. Operators felt that, at the policy design stage, the mechanisms surrounding the reimbursement calculations could have been made more transparent sooner, so that they could have formed a sound understanding of what their involvement would require. Operators appreciated the increased clarity provided on the reimbursement processes and terms as the scheme progressed.

Once the scheme had been implemented and mobilised, the repayment process was delivered as scoped, with bus operators noting the timelines of the payments. However, some operators noted burdensome data requirements and raised concern regarding how inflation had been accounted for in DfT's calculations. Concerns were greater for smaller operators. DfT also highlighted resource constraints in the processing and validation of data from operators to calculate reimbursements, and recognised the difficulties faced by operators.

Operators had considered a number of factors when deciding to participate in the scheme. These included the reimbursement process and were predominantly finance led.

A clear review process was in place for considering extensions to the scheme, and operator feedback was used to make improvements to the third phase. DfT stakeholders felt that clear review processes had been in place when considering extensions to the £2BFC. Despite this, extensions were subject to resourcing and funding constraints and significant efforts had been made by DfT and operators to mobilise the potential change from £2 to £2.50 which had been planned for November 2024 as part of the second extension of the scheme. Ultimately, this planned increase did not occur as the £2 fare cap was extended to 31 December 2024. Given operator feedback on the intensive data requirements of the scheme, following the first two extensions DfT used the third extension as an opportunity to adjust requirements.

With regards to the ending of the policy, DfT and operators recognised that this would have impacts on passengers and operators with plans yet to be defined. Operators showed a preference for a phasing-out approach, which would help to manage passenger expectations better.

Other learnings on the impact of the £2BFC over the first 10 months of the scheme

Operators perceived the scheme to have supported patronage but noted that this benefit had not been achieved without some unintended impacts. The key challenge for operators,

particularly smaller operators, was the extensive data required to process reimbursements from DfT, especially in the run up to extensions of the scheme.

Operators had also frequently experienced capacity issues across specific routes due to increased passenger demand. However, not all operators had made changes to frequency and service levels to accommodate the increased capacity. Those who had not made changes viewed any investment as a risk due to a lack of certainty on passenger demand following the end of the scheme.

Other negative impacts of the £2BFC on operators' bus services included greater resource pressure for drivers, mechanics and the bus fleet. Some operators also reported that the scheme had had an impact on their ability to make commercial decisions, either because they were not in control of setting fare structures across routes or because the change in the type of tickets purchased generated less useful ticket sales data to inform commercial decisions.

There were some concerns over managing the policy close-out and operators were generally in favour of a stepped approach. Operators tended to support a stepped fare approach which would slowly increase the fare back to pre-intervention levels. Operators in favour of a stepped approach to ending the scheme suggested that this would likely minimise any significant impacts, as described below. Implementing a stepped, transitionary fare would reduce potential negative publicity, while also allowing operators to make longer-term plans.

Operators raised concerns over managing passenger expectations to prevent any detrimental impacts on bus patronage following the increase in the fare once the scheme ends. This was perceived as being exacerbated by the long duration of the scheme, which could lead to passengers being less aware of pre-intervention fare levels.

2 Introduction

2.1 Overview of the £2BFC

The £2 Bus Fare Cap (£2BFC) was launched by the Department for Transport (DfT) on 1 January 2023. The scheme had two key objectives:

1. To reduce the cost of living, particularly for low-income households, by simplifying and reducing the cost of bus travel; and
2. To increase bus patronage by simplifying and reducing the cost of bus travel, and to increase passenger confidence to travel on buses.

The scheme was also expected to support the aims of the National Bus Strategy (NBS)[12] to enable modal shift, with associated benefits related to congestion, air quality and carbon emissions.

The scheme was originally due to run until 31 March 2023 but has since been extended three times. It will now continue until 31 December 2024.[13] Between 1 January 2023 and 31 December 2024, eligible bus operators can voluntarily implement a £2 cap on eligible single tickets. Some types of routes are not covered by the scheme. These include coach services, school-only services and airport services. Routes in London, Grater Manchester and West Yorkshire are also excluded from the scheme as fares are already capped in these areas.

The £2BFC scheme has been split into several phases (Figure 1). This report only looks at the Bus Fare Cap Grant (BFCG) (i.e. £2BFC) period which covers January to October 2023. After October 2023, the scheme is referred to as the National Bus Fare Cap (NBFC). Adjustments to the reimbursement and eligibility criteria have been made by DfT between each phase.

Figure 1 Phases of the £2BFC scheme

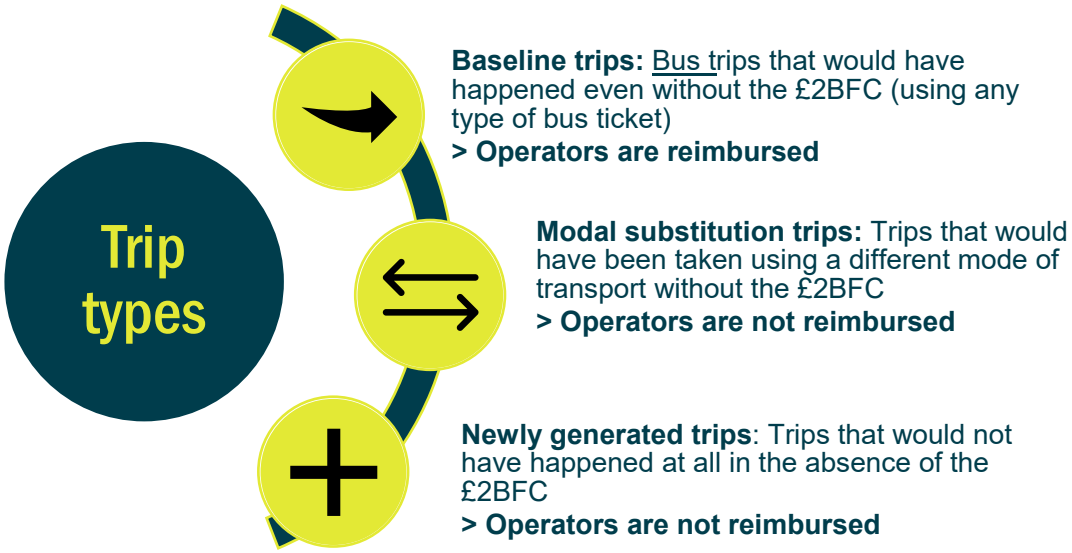
Source: Frontier Economics

The £2BFC covers the difference between £2 and the estimated fare that would have been paid in the absence of the scheme. Where trips are brand new following the introduction of the £2BFC (i.e. are 'generated' trips), bus operators are not able to claim reimbursement. The reimbursement process is illustrated in Figure 2.

12 DfT (2021). Bus back better. Accessed at: https://www.gov.uk/government/publications/bus-back-better

13 DfT, Prime Minister's Office (2023). Government extends £2 bus fare cap and protects vital services. Accessed at: https://www.gov.uk/government/news/government-extends-2-bus-fare-cap-and-protects-vital-services

Figure 2 Operator reimbursement under the £2BFC



Source: Frontier Economics

2.2 Context in which the £2BFC has been implemented

Prior to the introduction of the scheme, the majority of bus trips were made using concessionary travel passes or period tickets (daily, weekly, monthly, and other tickets that were not singles or returns). Data from bus operators suggests that the average cost per trip made on these tickets was already below £2. For travellers for whom this is the case, the scheme would not be expected to impact travel behaviour. However, the average masks the significant variation in bus ticket prices across the country before the £2BFC, and therefore the savings associated with the £2BFC would be expected to vary significantly by individual.

The £2BFC is being delivered at the same time as several other transport interventions. These include bus improvements funded by the Phase 1 Bus Service Improvement Plan (BSIP Phase 1), which has been allocated to 34 local transport authorities (LTAs); City Region Sustainable Transport Settlements (CRSTS) funding for Mayoral Combined Authorities (MCAs); and the Rural Mobility Fund (RMF), which provides funding to trial on-demand bus services in rural or suburban areas of England. Several of these schemes are in the form of fares and ticketing interventions, i.e. additional discounts on single tickets, fare schemes for key groups or fare schemes on other ticket types. For example, Nottingham launched a free travel scheme for care leavers in July 2023.[14]

Since the introduction of the £2BFC, there have been further changes to the transport landscape. Additional funding for bus services has been provided through the BSIP+ scheme, which aims to support and protect bus services, and the Bus Service Operators grant plus

[14] Transport Nottingham website, Travel support given to Nottingham City Council care leavers. Accessed at: https://www.transportnottingham.com/travel-support-given-to-nottingham-city-council-care-leavers/

(BSOG+) scheme. More widely, there are several other ongoing and major investment programmes, many of which involve significant funding being distributed by other government departments to achieve the aims of the Levelling Up White Paper, which includes the aim that '…by 2030, local public transport connectivity across the country will be significantly closer to the standards of London, with improved services, simpler fares, and integrated ticketing' (HM Government Levelling Up White Paper, 2022, page 6).[15]

Examples of these funds, each of which has the propensity to support the delivery of bus and related local transport infrastructure, include £4.8 billion of infrastructure investment in towns across the UK via the Levelling Up Fund; £2.4 billion for 101 towns to unlock their economic potential via the Towns Fund; £830 million to regenerate 72 towns and high streets via the Future High Streets Fund; and £2.6 billion to support pride in place and life chances via the UK Shared Prosperity Fund.

2.3 Operator participation

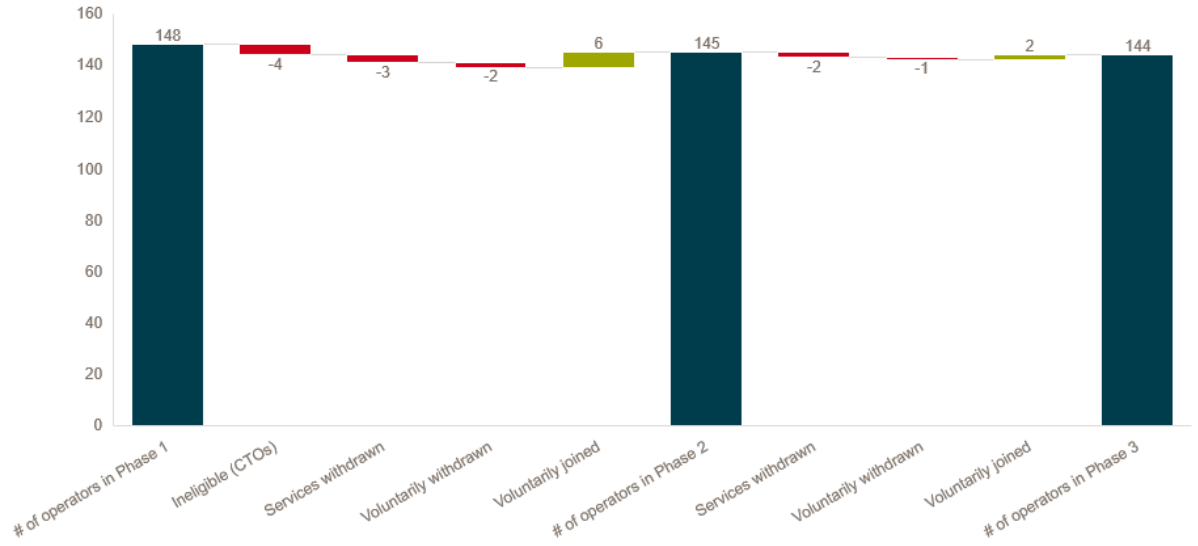
Operator participation has remained largely unchanged since the start of the scheme. A total of 148 operators, representing around 90% of the total market (by patronage), voluntarily joined the scheme in £2BFC Phase 1. The majority of operators that did not join the scheme in Phase 1 were ineligible.

Since then, there have been relatively few changes in operator participation. Seven operators left the scheme in Phase 2 due to ineligibility, withdrawal of services or exit from the market. Two eligible operators, both of which were small and medium-sized enterprise (SME) commercial operators, withdrew from the scheme. At the same time six operators joined the scheme.

Similarly, there was limited movement in operator participation between Phases 2 and 3. Two operators left the scheme in Phase 3 due to withdrawal of services or exit from the market and another operator voluntarily withdrew from the scheme. At the same time, two operators voluntarily joined the scheme. In £2BFC Phase 3, there were 144 bus operators participating in the scheme. This is shown in Figure 3.

[15] DLUHC (2022). Levelling up the United Kingdom. Page 6. Accessed at: https://www.gov.uk/government/publications/levelling-up-the-united-kingdom

Figure 3 Operator participation



Source : DfT data

2.4 Monitoring and evaluation

The £2BFC offers a valuable opportunity to build evidence on the effects of a national fares policy, how it impacts patronage and the cost of living, and under what circumstances. DfT commissioned Frontier Economics and SYSTRA to carry out an evaluation for the £2BFC. The evaluation covers a process, impact and VfM evaluation, and looks at Phases 1 to 3 of the £2BFC (January 2023 to October 2023).

2.5 Structure of this report

The remainder of this report is structured as follows:

- Section 3 details the evaluation approach for this monitoring and evaluation and sets out the evaluation questions and data used to inform findings.
- Section 4 sets out the process evaluation findings from the first 10 months of the scheme.
- Sections 5, 6 and 7 lay out the findings of the impact evaluation. Section 5 focuses on the impacts of the scheme on patronage and section 6 focuses on the cost of living impacts. Section 7 looks at other impacts, including awareness of the scheme, other factors that may have impacted passenger numbers, perceived passenger impacts of ending the £2BFC, and unintended consequences of the scheme to date.
- Section 8 sets out the VfM assessment.
- Section 9 sets out overall conclusions.

There are several accompanying technical annexes which set out the impact evaluation logic model along with further details on the primary data collection, econometric analysis and VfM approach.

3 Evaluation questions and approach

3.1 Purpose of the evaluation

Evaluation of the £2BFC can offer valuable learnings on what works in relation to fare schemes in improving patronage and reducing the cost of living. This monitoring and evaluation programme covers process, impact and VfM:

- The **process evaluation** explores learnings on the design, planning and implementation of the £2BFC scheme.
- The **impact evaluation** explores the extent to which changes in key outcomes, in this case patronage and cost of living, have been enabled by the £2BFC, for whom and under what conditions.
- The **VfM** evaluation explores the extent to which the £2BFC has made best use of public resources by meeting its original strategic objectives and delivering local benefits that exceed costs overall. As reducing the cost of living is a key policy objective of the scheme, understanding distributional impacts is a key part of the VfM assessment.

3.2 Evaluation questions

Evaluation questions for the process, impact and VfM evaluation were defined as part of a collaborative process with DfT.

3.2.1 Process evaluation questions

The overarching aim of the process evaluation is to understand 'what can be learned from how the intervention was delivered?'. A series of sub-evaluation questions that cover each stage of the implementation process were agreed.

Table 1 Process evaluation questions

Process evaluation questions	
Policy creation	Were clear objectives set for the policy? Were these objectives linked clearly to the resulting scheme?
	Was the policy created with a clear idea of how it would be implemented in practical terms?
	How did stakeholders contribute to the formation of the policy?
	Were payment issues considered during policy creation? Was there an understanding at the policy development stage of what data sources would be required?
	Was the necessary publicity of the policy considered during policy creation?
	Were passenger needs considered clearly during policy creation?
	Were potential unintended outcomes considered during policy creation?
Policy implementation	Were objectives clearly enshrined in the implemented policy?
	Did stakeholders support the policy they were asked to implement?
	Were the application and reimbursement processes based on sound analysis and research?
	Were details of the application process shared with operators and key stakeholders for comment, prior to implementation?
	Were clear and practical guidance and forms created?
	Were suitable arrangements put in place to collate and analyse data in an efficient and effective manner?
	Were clear publicity roles and responsibilities set out in documentation? Were other forms of publicity explored and engaged?
	Were data requirements clearly stated and justified in order to implement the policy? Were clear methods to calculate payments to

Process evaluation questions	
	operators devised and described in guidance? Were operators satisfied with the payment calculations?
	Were passenger needs considered during implementation?
	Did the policy take account of impacts on other transport modes?
	Were any unintended consequences reported ahead of the policy being implemented?
Operator mobilisation	Was the policy capable of being implemented by operators on the designated date?
	Were operators willing and able to share the required data? Was data shared by operators in a timely manner? Was the data collated used for its intended purposes?
	Did DfT devise and launch an effective publicity campaign? Were operators willing and able to publicise the policy effectively?
	Were operators able to access funding for the scheme in a timely manner that protected them against any changes in cashflow? Did operators consider that the reimbursement payments were fair and equitable?
	Did passengers gain quantifiable benefits from the policy?
	Were there wider issues with the policy that arose during implementation?
	Were any unexpected or unintended consequences reported as a result of the policy being implemented?
Policy close-out	Was there a clear strategy for ending the policy that took account of potential impacts?
	Was there a clear review process in place to consider continuing the policy?
	Was there a clear plan to publicise the end of the policy?
	Were the impacts on passengers of ending the policy fully understood and taken into account?
	Was there evidence that ending the policy had a detrimental effect on bus use, and how did that compare to the increase created by the policy?

3.2.2 Impact evaluation questions

The impact evaluation questions aimed to generate learnings on what works, for whom and under what circumstances. They were separated into two groups: key questions which focus on understanding the impact of the £2BFC on its key policy objectives, and additional questions which explore wider impacts of the policy, including whether it supports the objectives of the NBS.

A theory of change and accompanying logic model were developed as part of the evaluation scoping stage (Annex A

Table 2 Impact evaluation questions

Impact evaluation questions	
Key questions	What are the impacts of the £2 Bus Fare Cap on bus patronage (why, how, and for whom)?
	What are the impacts of the £2 Bus Fare Cap on bus passenger travel costs (why, how, and for whom)?
	How do the impacts on bus patronage and bus passenger travel costs differ by various factors?
Additional questions	What are the impacts of the £2 Bus Fare Cap on bus operators and service provision?
	What are the other factors that have impacted passenger numbers alongside the £2 Bus Fare Cap?
	What are the impacts of ending the £2 bus fare policy? To what extent are impacts maintained after the initiative ends?
	What other outcomes and unintended effects arise as a result of the £2 bus fare policy?

3.2.3 VfM questions

The assessment of VfM is based on HMT Green Book guidance[16] which requires evaluators to consider both the strategic dimension, i.e. did the scheme deliver against the original case for change, and the economic dimension, i.e. what is the net value to society of the intervention?

Table 3 VfM evaluation questions

VfM questions
Overall did the £2 Bus Fare Cap meet its strategic objectives to increase patronage and reduce the cost of living?
To what extent did actual spend differ from planned?
To what extent have the benefits of the £2 Bus Fare Cap exceeded costs?
What are the distributional impacts of the £2 Bus Fare Cap?

3.3 Evaluation approach

3.3.1 Overview of mixed-methods evaluation approach

A mixed-methods approach was taken to address the evaluation questions. This brought together evidence generated using several evaluation methodologies, including quantitative trend analysis of primary and secondary data, quasi-experimental econometric analysis and theory-based contribution analysis. This evidence was reviewed in the round to answer the process, impact and VfM evaluation questions (see above) and deliver the processes and effects anticipated in the logic model (see Annex E).

Further details on the quasi-experimental econometric analysis methodology can be found in Annex D .

3.3.2 Summary of data sources

A mix of primary and secondary data was used to inform the analysis.

Secondary data

Secondary data from three sources was used: (1) Ticketer data, (2) Transport for London (TfL) bus patronage data, and (3) data from operators.

16 HMT (2022). Green Book supplementary guidance: Value for Money. Accessed at: https://assets.publishing.service.gov.uk/media/62443d2c8fa8f5277b365ad7/Green_Book_supplementary_guidance_-_Value_for_Money.pdf

Ticketer data is collected by the 'Ticketer' onboard ticketing software. The Ticketer data reports patronage figures on any given day across England (excluding London) as a proportion of the patronage observed on the same day of the week in the third week of January 2020 (i.e. the reference week). It covers all patronage including concessionary travel pass holder trips and trips made by tickets other than singles or returns, e.g. period tickets as well as other ticket types. Data is available at a national and regional level. The data covers approximately 70% of the market (by patronage) but currently excludes some large operators. The precise proportion of the market covered varies over time in line with use of the associated onboard ticketing software. It was possible to control for potential fluctuations in this analysis (see Annex B for further details on strengths and limitations of this data).

Ticketer data was used to identify the increase in patronage observed following the introduction of the £2BFC relative to the observed patronage prior to its introduction. As this data is reported on a daily basis, it is also used to identify any potential variations in weekday and weekend patronage trends. TfL collects a similar dataset to the Ticketer data for London, although unlike Ticketer this data is in terms of absolute patronage rather than an index. London is of interest because the pre-intervention trends for London and the rest of England were similar, and £2BFC was not implemented in London. Therefore, TfL and Ticketer data were used together to carry out technical analysis which assumes that London's continued trend in patronage during the period of the £2BFC provides an illustration of what would have been expected to happen to patronage outside of London without the £2BFC (see Annex D for further details).

In addition to Ticketer and TfL data, data on ticket sales and revenues from operators participating in the £2BFC was submitted directly by operators to DfT. This comprised monthly data on ticket sales, revenues and patronage from January 2022 to October 2023 (i.e. including the 12 months prior to £2BFC and the first 10 months of it being in place). This is referred to as 'operator data'. It was used to compare trends in overall patronage, as well as sales of specific ticket types, before and after the introduction of the £2BFC. Only data from operators classified by DfT as 'big' and 'larger small to medium operators (LSME)' was used in this analysis. This is because more granular data was collected from these operators (a more proportionate approach was used to collect data from smaller (SME) operators).

Primary data sources

Four different research activities were undertaken to collect primary data. These consisted of a national survey, public focus groups, stakeholder interviews and a workshop with DfT.

A bespoke national panel survey was designed for this evaluation. The survey questions focused on travel behaviour, including bus use and motivators and barriers to bus travel; bus fares and ticketing behaviours; awareness and use of the £2BFC; and impacts of the scheme on bus use, modal shift, access to opportunities and on the cost of living. The survey also collected demographic information.

This survey was carried out online over four waves, with Wave 1 in December 2022, Wave 2 in February 2023, Wave 3 in November 2023 and Wave 4 in January 2024. While this evaluation

looks specifically at the impacts of the £2BFC in the first 10 months of its operation (January to October 2023), findings from all four waves were used to inform the analysis in order to maximise learnings. Each wave of the survey had around 4,000 respondents, and had representative quotas on English region, age and gender, along with minimum quotas for bus users and non-users.

Two online focus groups were also carried out, each with eight members of the public, in February 2024. All participants had used the bus outside of London since the introduction of the £2BFC and quotas were set to ensure a good mix of age and gender. The focus groups explored general perceptions of bus travel and influence on travel choices, awareness of the £2BFC and its impact on bus use, and impact of the scheme on cost of living. The focus groups also explored whether the £2BFC had addressed any previous barriers to bus travel.

Nineteen stakeholder interviews were carried out, as follows:

- 18 with representatives from 15 bus operators (five Big, two LSMEs, eight SMEs); and
- One with a representative organisation of the bus industry.

These interviews focused on understanding the role of stakeholders in the £2BFC, their experience of the application, mobilisation and delivery process, and observations on extensions of the scheme. Stakeholder interviews also covered expectations for close-out of the scheme.

Finally, an online workshop was held with four members of the DfT policy and commercial teams[17] who were involved in the delivery of the £2BFC. The workshop explored their roles and responsibilities, observations on scheme creation and design, mobilisation and delivery, and scheme extension.

3.3.3 Strengths and limitations of the evaluation

The mixed-methods approach undertaken for the early evaluation of the £2BFC was intended to provide an indication of trends following 10 months of scheme operation. Despite efforts to attribute early observed outcomes to the £2BFC, it should be emphasised that the findings need careful interpretation at this early stage. The following limitations should be taken into account.

The £2BFC scheme is ongoing

This evaluation focuses on learnings from the first 10 months of the £2BFC scheme, known as the £2BFC. However, the £2BFC scheme is still ongoing and the impacts of the scheme may continue to evolve over time.

[17] Please note the small sample size.

Intervention landscape

The £2BFC is being implemented alongside several other interventions which target transport outcomes. These include local ticketing and fare interventions as well as wider interventions designed to support patronage, ease the cost of living or impact wider societal outcomes. Due to the wide geographical coverage of the £2BFC, it is not possible to isolate its impact from these schemes. This is accounted for in the analysis, which focuses on understanding the average estimated impact of the scheme on overall patronage rather than more disaggregated regional analysis where the impact of local schemes would be more pronounced. However, this means that the findings cannot conclusively determine the contribution of the £2BFC, relative to other factors.

Robustness and applicability of data sources used for the impact evaluation

While operator-provided data on ticket sales, revenues and patronage was collected for the majority of participating operators, this information is only available at a monthly level across the entire area of each operator's operation. As such, the data is not well suited to undertaking detailed disaggregated analyses (such as regional or rural/urban variation) and any such results must be interpreted with caution. Further, despite the £2BFC extending to large and small to medium-sized (SME) bus operators, the data provided by the latter is generally less detailed and robust. As such, the analyses focus on the larger operators only, meaning that the inferences may not be applicable to smaller operators.

With regard to the Ticketer dataset, its measurement of patronage data is only available as a proportion of pre-COVID levels (explained further in Section 3.3.2). Further, the data was not collated specifically for the £2BFC impact evaluation and therefore includes ineligible tickets (such as concessionary travel pass holder patronage) and ineligible routes which cannot be excluded from the data. This means that the econometric analysis may overestimate or underestimate the impact of the £2BFC. This is discussed further in section 5 but key limitations include:

- The data on patronage is not available in absolute terms outside London as patronage is measured as a proportion of patronage prior to the COVID-19 pandemic. The dataset presents bus patronage on a given day as a proportion of bus patronage on the same day of the week in the third week of January 2020. As such, results in this report focus on relative changes and not absolute changes in patronage.

- The Ticketer dataset is the most comprehensive national and regional data that provides sufficiently frequent data (it is reported daily). It covers all bus patronage, including journeys on concessionary fares, as well as journeys on routes and/or operators ineligible for the £2BFC, possibly due to existing fare schemes. Additionally, Ticketer does not include patronage on services operated by some operators, including some large operators which represent a large proportion of total patronage in the market. Nonetheless, coverage is estimated to be around 70% of the market in terms of patronage.

- The proportion of the market covered by Ticketer data varies over time with the use of the associated onboard ticketing software. It is possible to explicitly account for this in the analysis. If there were significant changes in the proportion of operators included in the Ticketer data, this could impact the observed trends and associated inferences.

Further information on each data source and their strengths and limitations can be found in Annex B .

4 Process evaluation of the first 10 months

This section sets out detailed findings regarding the process of designing, mobilising, delivering and extending the £2BFC. Feedback was gathered from participating operators and the DfT. The overarching questions for the process evaluation are:

- What worked well, and for whom, with the delivery of the £2BFC?
- What worked less well, and what could be improved with the delivery of the £2BFC or future similar schemes?

Table 1 provides the full list of process evaluation questions.

4.1 Experiences of designing the £2BFC

Key messages

Experiences of designing the £2BFC

- **Policy design.** Overall, the DfT was satisfied with the policy design, with high levels of engagement with the participating operators and with the relevant ministerial departments in government.
- **Understanding the scheme.** The participating operators were very clear on the intended objectives of the £2 £2BFC, but the mechanisms surrounding the reimbursement calculations could have been more transparent.

4.1.1 Policy design

DfT noted that the objectives for the £2BFC scheme were set clearly early on, with smooth ministerial sign-off on these.

> "It is rare to get such a clear and direct steer on the objectives; and then what we did from that point was work with operators." (DfT representative)

The DfT policy team explained that, at this early stage in policy design, the cost of the fare cap was not calculated with any existing principles or methodology during the process of delivering the scheme – errors were later identified in the costing methodology, but the overall estimates remained largely accurate.

During the policy design and creation phase, there was a high level of engagement with operators from the DfT: four bespoke sessions were run with operators, each covering different topics including eligibility criteria, monitoring and evaluation, and others. Most of the engagement was led by DfT with some support from the Confederation for Passenger Transport.

This engagement led to the development of a 'you said, we did' document which set out what operators wanted to be included in the general terms and conditions of the scheme and DfT's response for why or why not these requests were accepted. During this stage, DfT explained that it would test new iterations of the terms and conditions on an almost weekly basis. Examples of areas that had to be explored and clarified with operators included the inclusion of tendered services that did not have a BSOG number and the inclusion of schools' services.

DfT ensured it was transparent with operators throughout the process from the very start. It recognised that, as this was a voluntary scheme, it was important to gain their buy-in to ensure participation. Although there was no direct engagement with the public at this stage of the policy design, DfT noted that they were central to the policy.

4.1.2 Understanding the scheme

Almost all operators were aware that the £2BFC was intended to address the cost of living crisis, although some were initially under the impression that it was solely, or also, to increase passenger numbers following the COVID-19 pandemic.

Operators interviewed felt that the repayment funding formula was difficult to understand and noted that they would have preferred increased transparency regarding the assumptions used and details of the calculations. The DfT representatives noted that parts of the methodology were 'obscure'; this was to reflect the iterative nature of the methodology and ongoing work to agree what was in, and out, of scope.

> "I've not found it particularly easy to follow [the DfT repayment] formulas and there's never really been any walk through of how they arrive at the final amount." (SME operator representative)

There was appreciation amongst operators for the increased clarity on the assumptions in the £2BFC terms and conditions as the scheme progressed, compared to at the start. However, more clarity is still needed on decisions around how inflation is considered within the repayments formula, as operators remain concerned that inflation has not been sufficiently covered over time.

> "Inflation had changed, but then I think it was the first extension that almost all the numbers went backwards and wasn't really justification." (Big operator representative)
>
> "If fares increase by 5%, reimbursement is increased by 5% currently, but in actuality reimbursement would need to be a multiple depending on our average price and the percentage change." (Big operator representative)

The DfT team recognised that inflation was an ongoing issue in delivery of the £2BFC and that operators were not satisfied with how it has been accounted for throughout the life of the scheme. DfT suggested that the high levels of inflation that had been forecasted at early stages would have meant that operators benefited from high levels of reimbursement, which

might not be available in future reimbursements. DfT representatives stated that they did not want operators to be financially burdened by the scheme.

> "We certainly don't want to cause operators financial struggles because they sign up to the scheme." (DfT representative)

4.1.3 Operator decision to participate

Overall, operators had considered the following factors when deciding whether to participate in the £2BFC scheme:

- Amount of reimbursement they expected to receive, and whether they would be at any risk of a financial loss;
- Types of customers and routes they serve and the benefit of the scheme to passengers given the cost of living crisis;
- Competitor behaviours and whether they would be disadvantaged by not participating in the scheme; and
- Level of alignment with other objectives.

One large operator interviewed suggested that they felt obligated to participate in the scheme and noted that otherwise the scheme may not have been able to progress at a national level as designed.

The DfT representatives also explained that, although some operators had appeared dissatisfied with the scheme at times, they had agreed to participate, and this ultimately offered a good coverage of the £2BFC across all operators.

4.2 Experiences of mobilising the £2BFC

Key messages

Experiences of mobilising the £2BFC

- **Operator decision to participate**. The decision of bus operators to participate in the scheme was primarily led by the financial impact of the reimbursement, the scope of customer benefits (including distributional impacts) and the decision to participate by competing bus operators.
- **The repayment process.** The mobilisation of the repayment was in line with the work plan, with the bus operators noting the timeliness of the payments. However, some operators noted burdensome data requirements.
- **Marketing and promotion** The marketing of the £2BFC scheme proceeded as planned, with the DfT representatives noting that they were able to promote the scheme effectively.
- **Unintended effects.** As with any large-scale intervention, the £2BFC has given rise to some unintended consequences, both positive and negative. These include changes in ticket types purchased by passengers, in addition to payment methods used, and overcrowded services and passenger confusion over the scheme.

4.2.1 The repayment process

Once the operators had launched the scheme, DfT's role was limited primarily to managing the payment process. The DfT representatives explained that, to mitigate financial risk to operators, repayments were made in advance rather than in arrears.

> "We've already agreed the funding allocation before they join and we then just process payments monthly… we don't pay in arrears and pay it up front because we don't want didn't want to risk any operators getting into cash flow issues." (DfT representative)

Notwithstanding challenges around clarity on the repayment funding formula, operators interviewed were generally happy with the repayment process, and they noted the timeliness of payments as a key strength of the scheme.

> "We've been very compliant with the required deadlines from the DfT and the payments have been made in a timely manner to the bus company." (SME operator representative)

Despite having a generally positive experience with the repayment process, operators interviewed did note issues around the notifications of incoming payments and burdensome data requirements.

Specifically, operators reported that limited information was provided on the descriptions of incoming payments, and that notifications of payment were often sent to multiple people, both of which created administrative challenges when handling funding.

> "Every remittance we get it says BSOG which is difficult when you've got 3 or 4 concurrent schemes." (Big operator representative)
>
> "Everything that is sent, you never know who else has been copied in…between the three or four of us on the mailing list…we don't know if we have all got it. Also, all the messages look the same, in the header it doesn't tell me which company it is for." (Big operator representative)

With regards to the data required to calculate repayments, operators noted that data can be challenging to provide due to the:

- Timescales
- Amount of data
- Format of data

Operators also wanted increased clarity on why specific data was required and its use.

Concerns were greater for smaller operators, who have limited resources to help with data processing and have to consider hiring extra resources for support.

> "Initially the amount of data required was really onerous with a very short time scale… we're a smaller operator and the level of data that we were required to compute was kind of at odds with how our systems work... if you're a big operator, one of the big, big groups you employ teams of people who are looking at your data, and you probably have systems, whereas for a smaller operator I felt like it was a lot of a lot of data required." (SME operator representative)

Regarding the format of data, operators felt that the proformas provided by DfT were difficult to complete, and that a lot of copying and pasting was required with large room for error.

Despite concerns, operators suggested that the data provision process had become easier with time, as they had grown accustomed to it and data requests were no longer required on a monthly basis.

> "I find the sheet difficult to fill in. There is a lot of copying and pasting involved, which is easy to get wrong and needs a lot of proof checking." (Big operator representative)
>
> "Seemed like an endless job on spreadsheets." (SME operator representative)

> "I think it's become easier to submit because a) you are used to it and what the expectations are, what the data needs to be, but also b) the scheme no longer asks for data every month." (SME operator representative)

One operator put forward a suggestion for an alternative method of data sharing, suggesting that a partnership between Ticketer and DfT would be beneficial due to the electronic ticket machines collecting a lot of the relevant data which could be automatically processed across operators.

The DfT representatives recognised the difficulties facing operators regarding the repayment process, with concerns about levels of reimbursement, being trapped in the scheme and the level of data requirements to enable payment. They noted that the data processing requirements were made clear to operators at the early stages of the policy, and they felt they took a practical and pragmatic approach to data collection and repayment, ensuring payments were made to operators in advance, and then re-balanced as needed.

The DfT team noted that they adapted the repayment process for smaller and larger operators, recognising some of the concerns with data provision outlined above. Additionally, data returns from operators were initially done monthly, but DfT had changed the approach to quarterly as it had also experienced challenges with resourcing internally. The DfT noted that it had no set team to manage operator data collections, including data validation and reimbursement calculations. Instead, it outsourced this role through a competitive tender process to Ernst & Young (EY) who work collaboratively with DfT to deliver the scheme. DfT noted that both DfT and EY were under instruction never to alter or edit operator data; instead, EY works closely with operators to help them identify and rectify any issues.

There have been discussions about moving this capability entirely in house at DfT, but uncertainty around the scheme has prevented this.

> "The reality is that and it is still a significant amount of data and operators were also not given a huge amount of time in which to return the data to us and because we need a set amount of time to do all the data validation and then calculate the allocations." (DfT representative)

4.2.2 Marketing and promotion

The DfT representatives explained that a number of activities had been carried out to support the marketing and promotion of the £2BFC scheme. These included the development of a 'toolkit' for operators, social media communications, formal press releases and some promotion activity including videos by the Transport Minister. They further noted that they had also observed operators carrying out their own promotion. The DfT team were satisfied that they had been able to promote the scheme effectively given the short timescales, but also noted that the scheme would 'sell itself' and that word of mouth was also an important factor, as well as the simplicity of the message 'Get Around for £2', regardless of other marketing efforts.

In terms of the operator perspective, it was felt there had been good awareness and recognition of the scheme in their communities over time, which they attributed to the simplicity of the fare making it easy to market.

> "Bus and £2 have now almost become synonymous." (Big operator representative)

Operators had initially found the DfT marketing toolkit helpful, but there were differences in how they used it. Some operators had made great use of the DfT's resources and appreciated the cohesion of the marketing content across buses in their local area. In contrast, other operators had taken it upon themselves to produce content using their in-house team due to the mismatch in the style of the toolkit and typical marketing they produced. Operators suggested that, at the start of the scheme, there could have been a bigger push from DfT on promotion and marketing of the fare. They also felt that marketing and communication materials could have been sent sooner.

> "That was all very handy to have everything prepared and all the operators are singing off the same song sheet." (SME operator representative)

Channels used by operators to promote the scheme included:

- Social media marketing
- Promotional materials on the sides of buses
- Drivers verbally telling passengers that £2BFC was available and encouraging its use.

4.2.3 Unintended effects

Operators reported a number of wider unintended operator effects of the £2BFC, and these could have had some influence on wider operator function. However, it should be noted that these observations should be considered as anecdotal and not necessarily reflective of the scheme as a whole. They included the following:

- There had been a significant decrease in sales of weekly, monthly and annual tickets as passengers had shifted to purchasing single tickets.
- There had been increased cash transactions as opposed to online payment methods, with one operator reporting an increase from 4% to 7%. Operators attributed this to the ease of finding £2 in cash.
- There was less data collected on passenger journeys, as drivers were less motivated to ask passengers for their destination, instead issuing a £2 single flat fare. Additionally, customers using contactless payment were no longer tapping off. This loss of data had also made calculations for tendered services more difficult.
- There had been more customer complaints as operators were unable to accommodate the increased demand and services were overcrowded. This problem had been exacerbated by ongoing train strikes.

- Despite good recognition amongst passengers, there had been some negative reactions on buses which carry school children, as the scheme does not apply to these passengers. This restriction had made communication to the public more difficult.
- Operators frequently experienced capacity issues across specific areas due to the increased demand, but not all operators had made changes to frequency and service levels to accommodate for this. Those who had not made changes viewed the investments as risky due to uncertainty of passenger demand following the end of the scheme. The short-term growth in passenger numbers meant resources such as drivers, mechanics and bus fleet were over utilised, and operators expressed the need for a longer-term plan to accommodate this.

> "We're not at the point where we would increase the frequency on [the route] and it is difficult to do… because the fares would still be £2.00 and we wouldn't really get any additional money for that." (SME operator representative)
>
> "Part of our mind is… but are we just going to invest in that, and it'll only be there for the next 6 months because if the fare disappears, demand disappears." (Big operator representative)

4.3 Experiences of the £2BFC

Key messages

- **Extension decision making**. The extensions of the £2 £2BFC were used to make improvements to the delivery of the scheme, such as the data collection requirements, to ease the burden on the bus operators. Additional funding allowed the maintenance of the £2 cap, as opposed to an increase to a £2.50 cap.
- **Work to enable extensions.** The extension of the £2BFC was subject to resourcing constraints, given other ongoing schemes. Additionally, given operator feedback on the intensive data requests following the first two extensions, the DfT had to adjust requirements for the third extension.
- **Unexpected outcomes.** The extensions to the £2 £2BFC gave rise to unexpected complexities and outcomes including its interactions with other funding and fare schemes, as well as fare changes over time.

4.3.1 Extension decision making

The DfT team explained the decision making behind extending the scheme. They noted that, prior to each extension starting, the time frame had only been four to five weeks, which had been challenging to deliver. Each extension had had to be approved by ministers. As ministerial personnel had changed during the lifetime of the extension, the rationale for proceeding had to be explained in detail each time. However, DfT also took extensions as an

opportunity to refine and adjust the £2BFC policy to make improvements, including refining the data collection requirements.

For each extension, DfT had had to find funding to support the extension. For the extension agreed in autumn 2023, which extended the scheme to the end of 2024, Network North HS2 cancellation funding was being utilised.

For the extension agreed in May 2023, an adjustment to the policy had been planned to deliver a £2.50 Bus Fare Cap from November 2023 in place of the original £2 Bus Fare Cap. This was due to:

- DfT planning a staggered fare exit from the scheme; and
- Lower rates of inflation meaning there was a reduced requirement for a cost of living measure.

Significant efforts were made by DfT to mobilise the change to £2.50, including around the cost modelling and allocation process. Operators had also made significant efforts to mobilise this change in fare level, including providing a large volume of data to DfT.

> "The primary objective of the policy was to be a cost of living measure, so it was always pegged against the inflation crisis and so the decision to run it and the thought for moving to £2.50 was always…So when it's halved, we'll moved to £2.50, then it'll go back to usual levels and we'll exit. That was always the plan." (DfT representative)

Due to availability of funding arising from the cancelled Northern leg of HS2, a decision was made to continue with a £2 Bus Fare Cap rather than increasing the cap to £2.50. In response to this, DfT put in place an interim approach to operator data collection, which needed to be repeated. This involved rolling forward allocations.

DfT had initial concerns about announcing the reverse in decision making relating to the £2.50 fare to operators, but a quick decision to roll over allocations helped to smooth this out. The DfT representatives felt there was a risk at this point that operators would drop out but explained that they now had more operators in the scheme in terms of aggregate numbers than previously.

4.3.2 Work to enable extensions

The DfT team noted that resourcing was an issue once DfT had decided to implement extensions:

> "Resourcing has been a huge issue delivering the extensions which were under extremely short timescales and made it very difficult." (DfT representative)

The team explained that the latest extension in autumn 2023 had come at the same time as other key tasks from ministers, so they had had to go back to ministers to ask them to

reprioritise workload. Ministers had been able to do this, and the team welcomed their flexibility.

Operators generally perceived enabling extensions to the scheme as a straightforward process, aside from the data requirements. Operators had issues with the first (March 2023) and second (May 2023) extensions, as there were data-intensive monthly reports as well as changes to the reporting proforma and additional data requests.

However, operators with this view reflected that after receiving feedback on the data requirements the DfT had adjusted requirements for the third extension, which had made the extension feel less rushed, and data reporting was reduced to a quarterly approach. They also felt that clarifications with the DfT regarding the monitoring and evaluation proforma had been well handled.

Other concerns mentioned by operators regarding the extension process included:

- There was a shared frustration amongst the operators interviewed regarding the large amount of work undertaken to prepare for the £2.50 Bus Fare Cap prior to its cancellation.
- Announcement of extensions had been made prior to operators receiving a final reimbursement offer and confirming their continued participation. Therefore, the decisions had been rushed and operators felt there had not been enough time or information. This had also impacted their relationship with their customers and had given them negative PR.

> "Some additional time with submitting the data that the DfT needed would have been useful, and I think every time the timescales have been very tight in terms of the receiving the offer from the DfT on the amount that you're going to get, and then that window where you have to accept the amount and do any work that you need to do to say is this enough." (Big operator representative)

- Extensions had made marketing difficult as operators were uncertain about the duration of the scheme and planning.
- Over time, it had become more difficult to withdraw as competitors were also participating in the scheme.

4.3.3 Unexpected outcomes due to extensions

Both operators and the DfT team noted that extensions to the £2BFC scheme had led to new complexities over time. Representatives explained that the interaction of the extended £2BFC with other funding, such as Bus Service Improvement Plans (BSIPs), as well as regional fare caps was one of the unexpected issues with the scheme.

Of the areas that had a fare cap scheme at the point of the launch:

- Some had chosen to extend these in parallel to the national £2BFC extensions. This had included combining the national cap funding with existing funding to offer a lower capped

fare such as to £1 or £1.50. Some operators raised concerns with this approach, as they felt that artificially low fares introduced by combined national and local funding could be unsustainable. In these instances, operators felt that a more targeted utilisation of the local funding would have been more impactful in the long term.

- Others had cancelled local caps and had approached DfT to join the national £2BFC, meaning that the DfT had needed to find the additional funding to support this.
- Others, such as in the Cornwall and Stoke area, had held discussions with LTAs, DfT and operators to understand how different funding interacted (or distorted), to avoid any double-funding.

> "Our hands are tied effectively because the scheme is open to everybody…. So the point at which your local area runs out of money means the burden is immediately shifted to DfT." (DfT representative)
>
> "There are all these really tricky issues which the longer a scheme runs, become more and more of an issue." (DfT representative)

An additional complication arising from the extension of the £2BFC related to fare changes; some fares which had existed at the start of the fare cap were under £2 (therefore out of scope) and had since increased to above £2 due to cost increases and inflation. However, these continued not to be reimbursed as they were not included in the baseline assessment. Therefore, the DfT had had to adjust the data collection approach.

5 Impact of the £2 Bus Fare Cap on patronage over the first 10 months

Key messages

- **The scheme appears to have had a positive impact on bus patronage**. Indicative analysis suggests that the £2BFC led to an approximate **5% increase in patronage recovery** outside of London from January to October 2023 compared to the same period in the previous year, out of a total observed 13% increase over that period. The total change in overall patronage will reflect a mix of factors including continued post-pandemic recovery and the impact of other local transport-related investments and interventions delivered during this period.[18]
- **The saving associated with the £2BFC varies significantly across passengers.** Prior to the introduction of the scheme, the majority of bus trips were made using concessionary travel passes or period tickets (daily, weekly, monthly and other tickets that were not singles or returns), with an average price below £2. However, the average cost per trip masks the significant variation in bus ticket prices across the country and therefore the savings associated with the £2BFC varies significantly by individual.
- **Evidence suggests that the impact of the scheme varies across passengers.** The survey responses suggest that 16–24 year olds, urban populations and frequent bus users tend to benefit the most from the £2BFC by undertaking more journeys since the introduction of the scheme and/or perceiving a positive impact of the scheme on various journey purposes and activities.

5.1 Expected impact on patronage

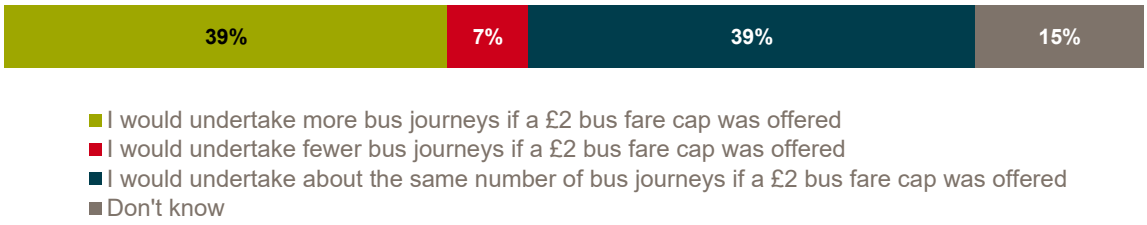
A logic model (Annex A) was developed for the £2BFC and outlined two potential channels by which the scheme was expected to impact patronage: (1) by reducing the cost of travel and (2) by improving the perception of bus travel. Any change in patronage could be driven by an increase in the number of bus journeys by existing passengers or by attracting new passengers onto buses by providing a cheaper alternative to other modes of transport.

Prior to the implementation of the £2BFC, Wave 1 survey respondents had been asked to predict what impact, if any, a £2 Bus Fare Cap would have on their frequency of bus use. Figure 4 shows that just under half of respondents (46%) had expected that a £2 Bus Fare Cap would impact their frequency of bus use, with 39% anticipating that they would undertake

[18] This is based on an econometric analysis of indexed rather than absolute patronage which measures patronage relative to a pre-pandemic point in time e.g. 78% of a pre-COVID baseline. See Annex E for further details.

more bus journeys if a £2 Bus Fare Cap was offered. In turn, 39% reported that they would undertake the same number of bus journeys with a £2 Bus Fare Cap in place.

Figure 4 To what extent, if at all, would a £2 Bus Fare Cap impact your frequency of bus use?



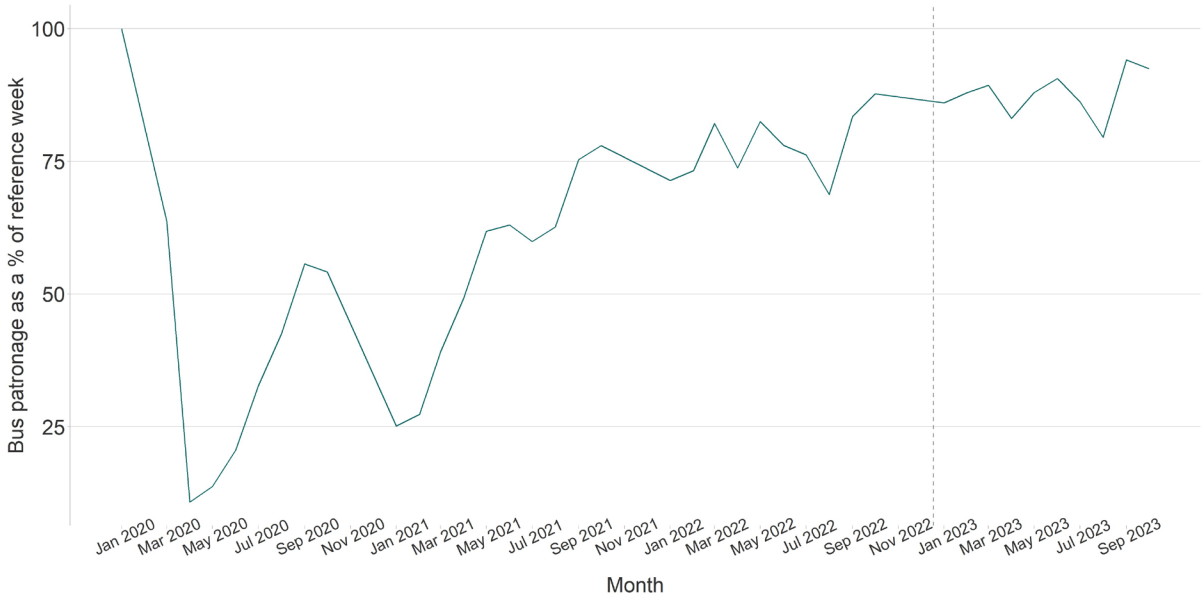
Source: Wave 1 survey (Base = 4,014; full survey sample)

5.2 Aggregate changes in bus patronage

The £2BFC was introduced at a time when bus patronage was already starting to recover following the impacts of the COVID-19 pandemic. In 2022, annual bus patronage had recovered to 78% of the pre-COVID baseline (see Figure 5).[19]

[19] As mentioned above, the Ticketer data does not report absolute patronage but instead reports patronage on a given day of the week relative to patronage on the same day of the week in the third week of January 2020 (i.e. the pre-COVID baselines).

Figure 5 Post-COVID recovery in bus patronage: January 2020 to October 2023



Source: Frontier Economics analysis of Ticketer data

Separating the impact of the £2BFC from changes due to wider post-COVID recovery and other factors is analytically challenging. Both the post-pandemic recovery and longer-term change in travel behaviour following the pandemic mean that pre-pandemic trends are not necessarily representative of current transport use patterns. This evaluation addresses this by taking account of these contextual factors when analysing observed trends, as well as by using econometric difference-in-difference methods which aim to identify the impact, if any, of the £2BFC on patronage over and above what would have been expected in the absence of the scheme.

5.2.1 Results from trend analysis

Observed trends in national bus patronage before and after the introduction of the £2BFC show that patronage has grown since the introduction of the £2BFC. Total patronage for the period from January to October 2023 in the Ticketer data was 12.6% higher than the same period in 2022. The equivalent increase in patronage was 13.4%, based on data provided by participating bus operators.

Data from operators also suggests that patronage growth has primarily been among adults rather than children. Total patronage on adult tickets (across all ticket types) grew by 16.6% between January to October 2022 and January to October 2023, compared to a slight reduction of 3.1% in total patronage on children's tickets (across all ticket types) over the same period.

Table 4 shows the change in observed patronage between January and October 2022 and the same period in 2023. The proportion of this change that could be attributed to the £2BFC is explored in the remainder of this section.

Table 4 Observed increase in reported patronage between January to October 2022 and January to October 2023

Dataset	2022 patronage	2023 patronage	% change
Operator data (#)	646,449,423	733,269,053	13.4%
Ticketer (relative to week 3 of January 2020)	77.9%	87.8%	12.6%

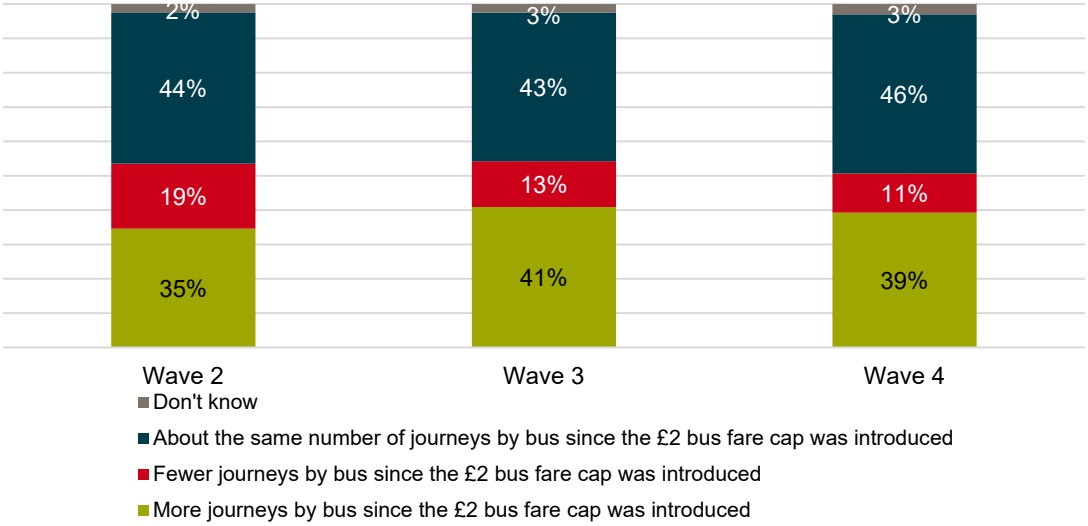
Source: Ticketer and operator

Note: The operator data only presents information for selected Big and 'LSME' operators for which robust data is available.

5.2.2 Results from self-reported patronage (primary research)

Across Waves 2, 3 and 4 of the survey, around 40% of survey respondents who reported paying a £2 fare reported that they had undertaken **more journeys** by bus since the introduction of the scheme (Wave 2: 35%; Wave 3: 41%; Wave 4: 39%) (see Figure 6).

Figure 6 Thinking about your travel since the £2 Bus Fare Cap initiative was introduced on 1 January 2023, have you undertaken more, fewer, or about the same number of journeys by bus, compared to before the initiative?

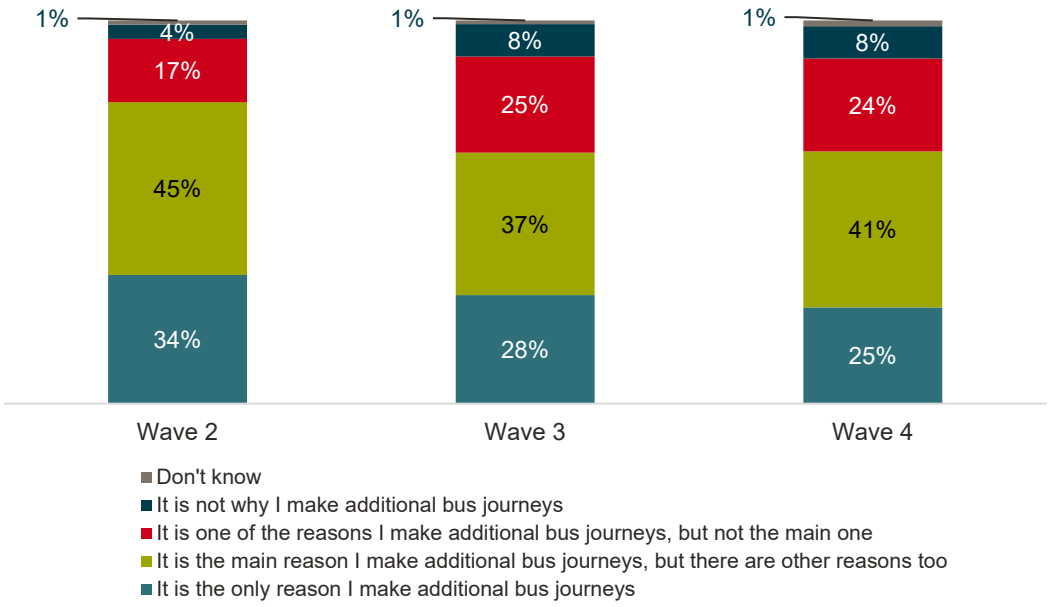


Source: *Wave 2 survey (Base = 1,204); those aware of the £2 Bus Fare Cap who have paid a £2 bus fare cap since the launch of the initiative); Wave 3 survey (Base = 1,590); those aware of the £2 Bus Fare Cap who have paid a £2 bus fare cap since the launch of the initiative); and Wave 4 survey (Base = 1,709); those aware of the £2 Bus Fare Cap who have paid a £2 bus fare cap since the launch of the initiative*

Across all survey waves, the majority of respondents who had undertaken more bus journeys attributed their increase in bus use to the £2 Bus Fare Cap itself (Wave 2: 95%; Wave 3: 91%; Wave 4: 91%). Of these respondents, around 40% consistently noted that the £2 Bus Fare Cap was the **main reason** for their increased bus use, although there were other reasons too (45%, 37% and 41%, respectively).

The extent to which the £2 Bus Fare Cap was perceived to be the **only reason** for increases in bus journeys decreased over the length of the scheme. Specifically, 34% of respondents stated that the cap had been the only reason for their increased bus travel in Wave 2, compared to 28% in Wave 3 and 25% in Wave 4 (Figure 7). In turn, there was a slight increase in the proportion of respondents who reported that the fare cap had been **one of the reasons** they had made additional bus journeys, but not the main reason.

Figure 7 You said you undertake more journeys by bus since the £2 Bus Fare Cap for a single bus journey has been in place, compared to before. To what extent, if at all, does the £2 Bus Fare Cap influence this change?



Source: *Wave 2 survey (Base = 417; those who have undertaken more bus journeys since the launch of the £2 Bus Fare Cap); Wave 3 survey (Base = 651; those who have undertaken more bus journeys since the launch of the £2 Bus Fare Cap); and Wave 4 survey (Base = 671; those who have undertaken more bus journeys since the launch of the £2 Bus Fare Cap)*

During the focus groups, participants fell into the following three groups in terms of the impact of the £2BFC on their frequency of bus usage:

- Those whose journeys had not changed;
- Those who were travelling more often by bus; and
- Those who had begun travelling by bus for the first time or after a long period of time.

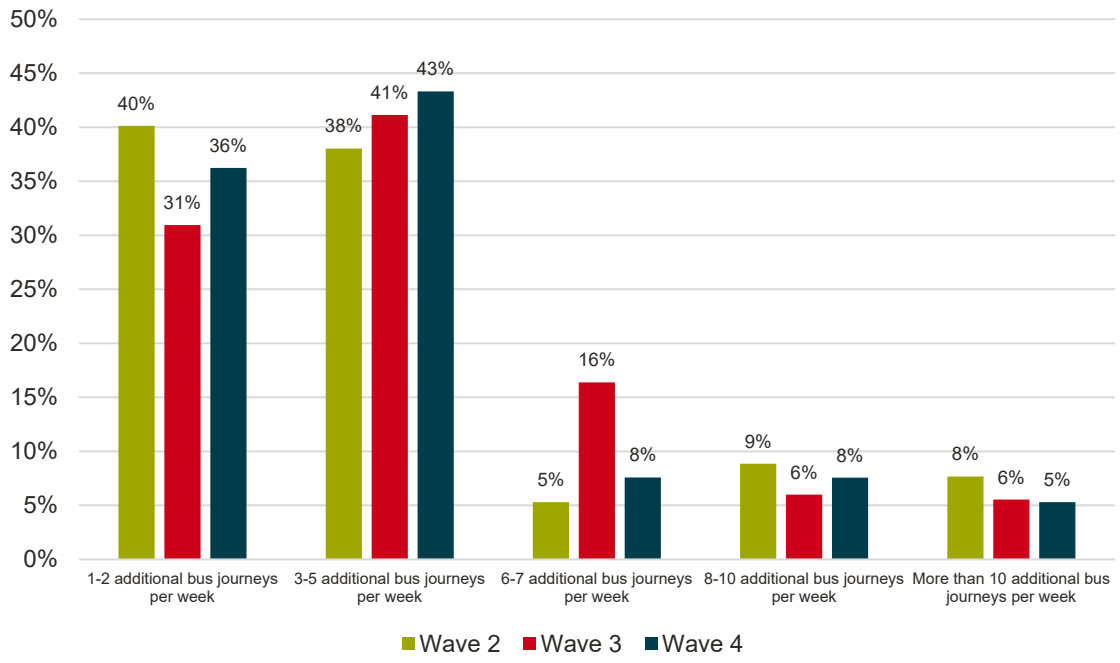
Operators interviewed described patronage impacts as a result of the £2BFC, such as:

> "Three weeks into the scheme, patronage in all 5 routes affected increased by about 40% compared to January 2022." (SME operator representative)
>
> "I think if we look at the most recent week, I think we had passenger growth potentially of about 8%." (Big operator representative)

Other operators described passenger growth as being slower and steadier, highlighting the benefits of the longer scheme. Similarly, the DfT team noted that the full impact of the scheme was yet to be observed.

Respondents to Waves 2, 3 and 4 of the survey who reported making more bus journeys since the launch of the £2BFC were asked how many additional bus journeys they made each week. Figure 8 shows that most survey respondents appeared to be making a small number of additional bus trips per week, with around three-quarters of respondents across all survey waves reporting that they undertook 1–5 additional bus trips per week. Findings also suggest a gradual increase in the proportion of survey respondents who made 3–5 additional bus journeys per week across Waves 2, 3 and 4 of the survey (Wave 2: 38%; Wave 3: 41%; Wave 4: 43%). Similarly, there was an increase in the proportion of survey respondents who made 6–7 additional bus journeys per week, with this peaking at 16% in Wave 3.

Figure 8 You said you undertake more journeys by bus with a £2 Bus Fare Cap for a single bus journey in place, compared to before. Approximately how many more bus journeys do you make each week?



Source: *Wave 2 survey (Base = 316; those who have undertaken more bus journeys since the launch of the £2 Bus Fare Cap); Wave 3 survey (Base = 261; those who have undertaken more bus journeys since the launch of the £2 Bus Fare Cap); and Wave 4 survey (Base = 273; those who have undertaken more bus journeys since the launch of the £2 Bus Fare Cap)*

5.2.3 Estimating the change in patronage attributable to the £2BFC

Difference-in-difference (DiD) analysis was carried out using the Ticketer and operator data to explore the degree to which observed changes in patronage can be attributed to the £2BFC. DiD is a statistical approach commonly used to estimate the incremental impact of an intervention by comparing observed outcomes between a 'treatment group' and a 'control group' over the same time period.

In this case, the 'treatment group' refers to routes that have implemented the £2BFC whereas the 'control group' for the purposes of this analysis refers to routes in London which were not eligible for the £2BFC (this is because the trend in patronage growth in both areas before £2BFC were similar, albeit at different absolute levels). It should be noted that the 'treatment group' in this analysis covers the entirety of England excluding London because this is the only data available.[20] This analysis therefore assumes that, in the absence of the £2BFC, patronage changes in England (excluding London) would have otherwise followed the same trend as they did London, because this was the case in the full year prior to January 2023.

However, due to the limitations in the coverage of the data, as well as the non-participation due to existing fare schemes of certain locations (such as Manchester and Liverpool), the analysis is not an accurate reflection of the 'treated' bus routes as it includes some routes that were not participating in £2BFC. In addition, the data available at the national level includes *all* patronage, including passengers who would not be affected directly by the £2BFC, such as concessionary travel pass holders. Further detail on the econometric approach, specifications and detailed interpretation of the results can be found in Annex D .

Two approaches were used to estimate the impact of the £2BFC on aggregate patronage over the period from January 2023 to October 2023. Both approaches attempted to take account of (i.e. control for) strike action, as well as any potential differences in patronage growth on weekends compared to weekdays, and seasonality. In addition, the second approach controls for regional variations in patronage when estimating the average impact of the £2BFC on aggregate patronage.

Table 5 Estimated impact of £2BFC over the period January 2023 to October 2023

Approach	Control for regional variation in the drivers of patronage	Implied % increase in patronage attributable to the £2BFC	Statistical significance
Approach 1	No	5.0%	Significant at the 1% level
Approach 2	Yes	4.9%	Significant at the 1% level

Source: Analysis based on the Ticketer data
Note: Further detail in Annex D

[20] There are other areas and routes that are not eligible for the £2BFC in addition to London as they have their own local fare cap schemes (see section 2.1). It has not been possible to exclude these areas from the treatment group due to the aggregation of the Ticketer data. As a result, the analysis may capture impacts of these local fare cap schemes. However this is expected to be relatively small compared to the impact of the national £2BFC.

Both approaches suggest that for the 10-month period from January to October 2023, bus patronage was around 5%[21] higher in the rest of England than it would have otherwise been expected to be (based on the trend in London). This can be interpreted as an indication of the impact of the £2BFC.

However, it is important to note that the attribution of the observed patronage change to the £2BFC is likely to have been affected by external factors, such that the approximate 5% impact on patronage estimate may overestimate or underestimate the incremental impact of the £2BFC. For example, the inclusion of tickets not eligible for the £2 fare cap (such as concessionary fares and other ineligible tickets) implies that because those passengers were not likely to experience any change in their travel behaviour, this is likely to dilute the percentage increase in patronage on eligible tickets. Therefore, this suggests a potential underestimate of the incremental impact of the £2BFC on observed patronage.

Conversely, the Ticketer data also extends to regions and localities that had their own fare schemes in place and did not participate in the £2BFC. Any observed increases in patronage in these areas, over and above that observed in London, would influence the estimate of patronage change attributed to the £2BFC. As a result, the analysis may also overestimate the incremental impact of the £2BFC on observed patronage.

Given these potential sources of upward and downward bias, **this analysis should be considered indicative of the potential magnitude of the likely impact of the £2BFC on patronage**.

5.3 Types of journeys impacted

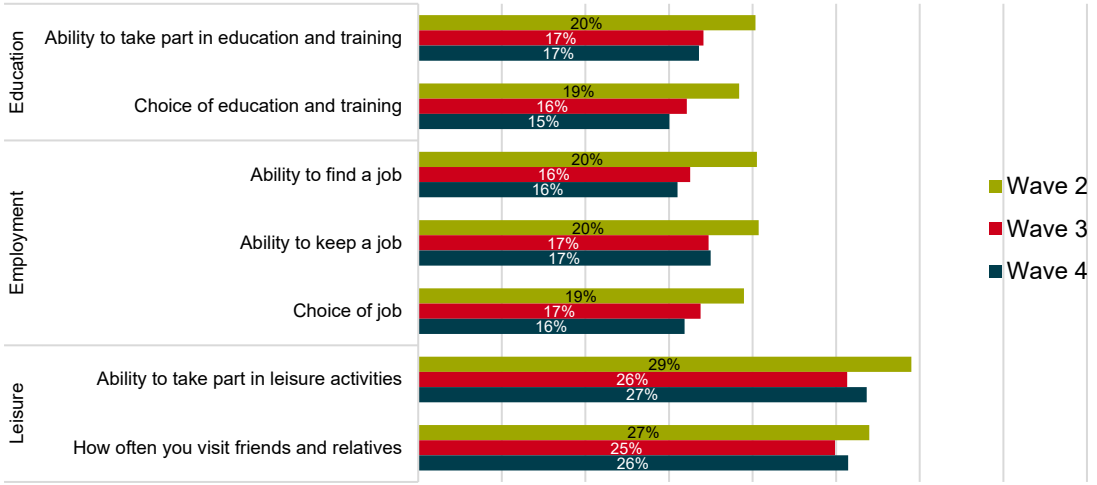
The impact evaluation also considers whether the impact of the £2BFC differed depending on journey purpose.

5.3.1 Results from self-reported patronage (primary research)

Evidence from the surveys highlights some variation in the impact of the £2BFC by journey purpose. Across Waves 2–4 of the survey, respondents perceived the £2BFC to have a greater positive influence on leisure activities than on education and employment activities (see Figure 9). However, it is worth noting that across all survey waves, one in six respondents said that the £2BFC had positively affected their employment and education choices.

[21] Statistically significant at the 5% level.

Figure 9 To what extent, if at all, does a £2 Bus Fare Cap for single bus journeys have a positive impact on...



Source: *Wave 2 survey (Base = 4,007; full sample); Wave 3 survey (Base = 4,011; full sample); and Wave 4 survey (Base = 4,014; full sample)*

Insights from the focus groups support these findings, with those who reported travelling by bus more often tending to note that these journeys, particularly long-distance journeys, were for leisure purposes. It was felt that these longer journeys offered particularly good VfM.

> "The lowering the fares allowed me to do some longer trips. I prefer to use the tram just basically for reasons of comfort, for trips, say out to local towns such as Bury, Rochdale, that kind of place, but with two pound fare I can hit Leeds from here on a £2.00 fare. And last year I took the coastliner, which is sort of one of the most beautiful bus trips, like a 5-hour trip from Leeds right away up to Whitby." (Male, 35–59, North West)
>
> "If you've got a spare day and you fancy going on one of those bus routes that goes, I don't know like 30 miles to the next town or whatever it might be, and you've got time to do it. Those journeys have become really cost effective and it just gives you something extra that you can do just to, I don't know, just a bit a bit of an adventure, a bit of exploring." (Male, 35–59, South East)

Across all waves of the survey, analysis consistently demonstrated (statistically significant) differences in perceived impact of the £2BFC on different activities. Firstly, when looking at the age of respondents, across all waves, younger respondents were more likely than older respondents to perceive the scheme as having an impact on all of the activities they were asked about (education and training, employment and leisure activities). This included both a positive and negative impact. Additionally, findings consistently differed by:

- Gender – men were more likely to perceive the scheme as having a positive impact on their ability to keep a job, compared with women.

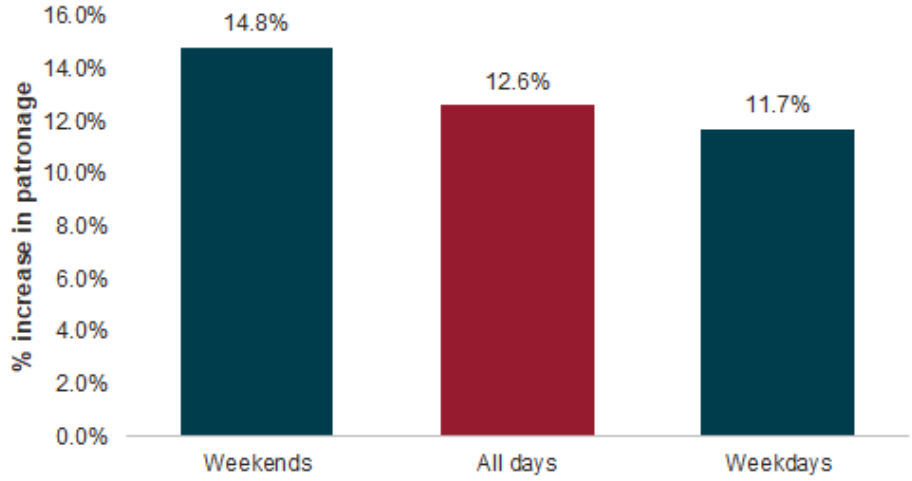
- Rurality – urban respondents were more likely than rural respondents to perceive the scheme as having a positive impact on all the activities they were asked about.
- Socio-economic status[22] – respondents classified as C1C2 or AB were most likely to perceive the scheme as having a positive impact on all the activities they were asked about, compared with those classified as DE.
- Bus user type – frequent bus users were more likely than any other respondent to perceive the scheme as having a positive impact on all the activities they were asked about.

While not consistent across all survey waves, the analysis also demonstrated (statistically significant) variations in the perceived impact of the £2BFC on other activities they were asked about and by other respondent characteristics, specifically ethnicity, income, bus pass ownership and region.

5.3.2 Potential impacts of the £2BFC over the week

Neither the Ticketer nor operator data provides information on journey purpose. However, Ticketer data is available on a daily basis and comparisons of weekday versus weekend trips was carried out. When comparing January to October 2023 with the same period in 2022, weekend patronage increased by a greater proportion than weekday patronage (14.8% compared to 11.7%) (Figure 10).

Figure 10 Increase in bus patronage between January and October 2022 and January and October 2023, weekends compared to weekdays



Source: Ticketer data

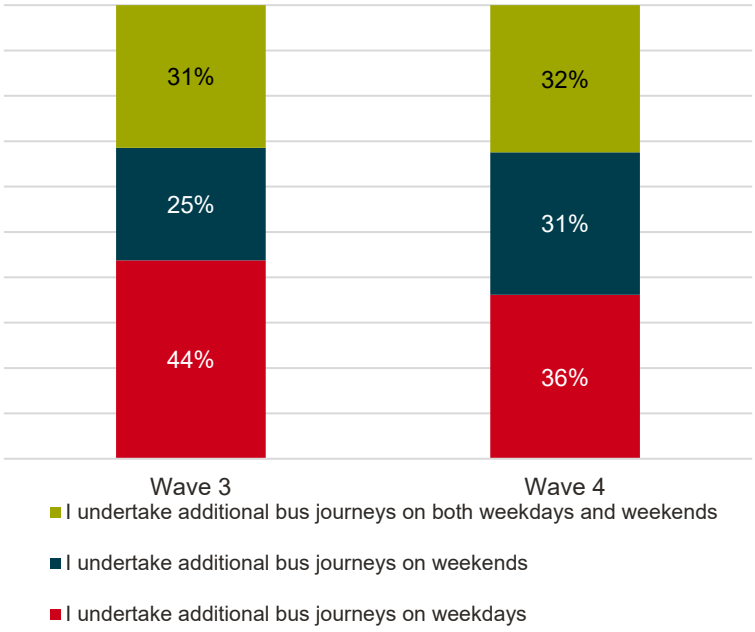
In addition to trend analysis, econometric analysis was used to understand whether there were potential differences in the impact of the £2BFC on weekend and weekday trips. The results

[22] Defined as follows: higher and intermediate managerial, administrative and professional occupations (AB), supervisory, clerical and junior managerial, administrative and professional occupations (C1), skilled manual occupations (C2), and semi-skilled and unskilled manual and lowest grade occupations (DE).

of this analysis suggest that the impact of the £2BFC on patronage was lower on weekdays than weekends.

In comparison, findings from Wave 3 and Wave 4[23] of the survey show that more respondents reported making additional trips on weekdays compared to weekends (Figure 11). However, across both waves, around a third of respondents said that they had made additional trips on both the weekdays and weekends. If the majority of these were on the weekend, this would align with the trends in observed patronage.

Figure 11 Do your additional bus journeys tend to be on weekdays, weekends, or both?



Source: *Wave 3 survey (Base = 651; those who have undertaken more bus journeys since the launch of the £2 Bus Fare Cap); and Wave 4 survey (Base = 671; those who have undertaken more bus journeys since the launch of the £2 Bus Fare Cap)*

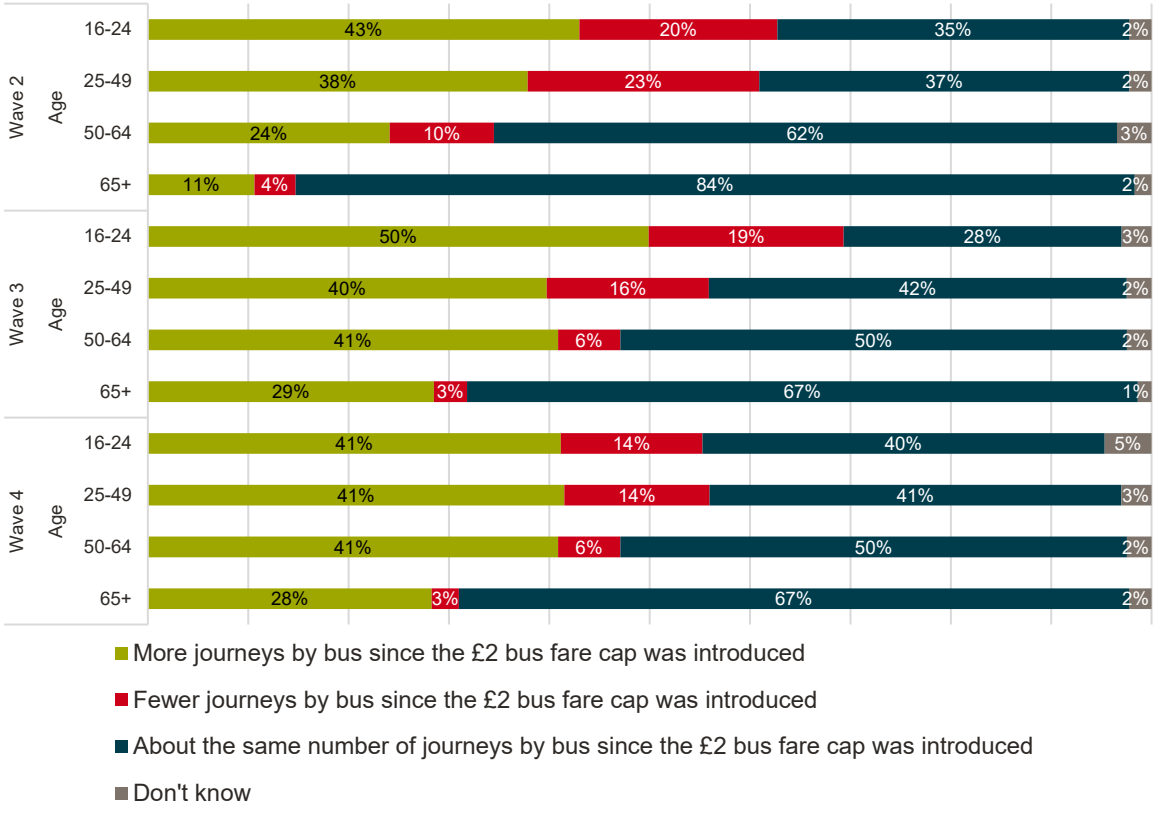
5.4 Estimated impacts of the £2BFC on different passenger groups

5.4.1 Results from self-reported patronage (primary research)

Figure 12 shows that respondents aged 16–24 were (statistically significantly) more likely than any other age group to report any change in bus travel frequency, including undertaking more or fewer journeys by bus, since the introduction of the £2BFC. This finding was consistent across Waves 2–4 of the survey.

[23] This question was added to the survey from Wave 3 onwards

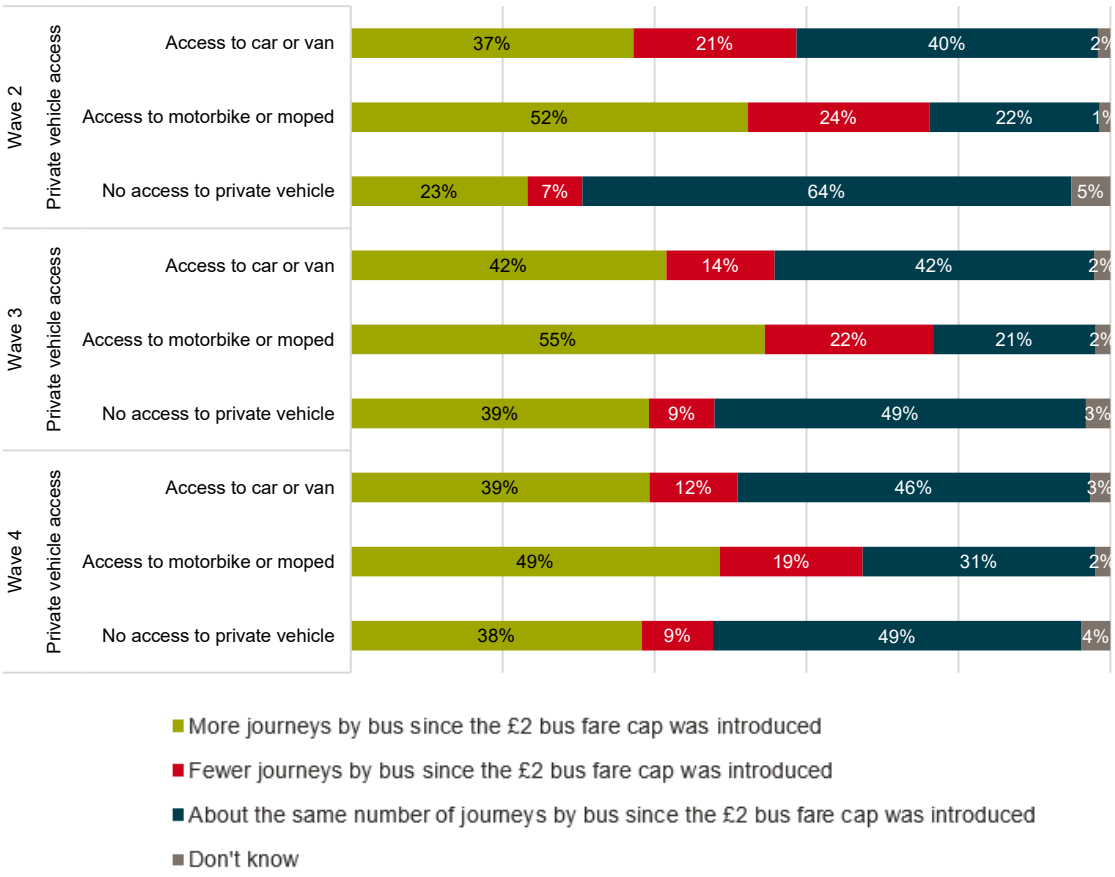
Figure 12 Thinking about your travel since the £2 Bus Fare Cap initiative was introduced on 1 January 2023, have you undertaken more, fewer, or about the same number of journeys by bus, compared to before the initiative? – responses across age groups



Source: *Wave 2 survey (Base = 1,201 – 1,204; those aware of the £2 Bus Fare Cap who have paid a £2 bus fare cap since the launch of the initiative); Wave 3 survey (Base = 1,569 – 1,590; those aware of the £2 Bus Fare Cap who have paid a £2 bus fare cap since the launch of the initiative); and Wave 4 survey (Base = 1,683 – 1,709; those aware of the £2 Bus Fare Cap who have paid a £2 bus fare cap since the launch of the initiative)*

Those with car, van, motorbike or moped access as a driver were also (statistically significantly) more likely to report a change in bus travel behaviour compared to those without access. Conversely, those without access to these forms of private transport were more likely to report no change in their bus travel behaviour. This finding was consistent across Waves 2–4 of the survey (Figure 13).

Figure 13 Thinking about your travel since the £2 Bus Fare Cap initiative was introduced on 1 January 2023, have you undertaken more, fewer, or about the same number of journeys by bus, compared to before the initiative? – responses across car ownership



Source: Wave 2 survey (Base = 1,201 – 1,204; those aware of the £2 Bus Fare Cap who have paid a £2 bus fare cap since the launch of the initiative); Wave 3 survey (Base = 1,569 – 1,590; those aware of the £2 Bus Fare Cap who have paid a £2 bus fare cap since the launch of the initiative); and Wave 4 survey (Base = 1,683 – 1,709; those aware of the £2 Bus Fare Cap who have paid a £2 bus fare cap since the launch of the initiative)

Additionally, those who were more likely to report undertaking **more** bus journeys since the introduction of the £2BFC were:

- Of socio-economic status AB (Figure 15);
- Frequent bus users who undertook journeys by bus at least once per week (Figure 14); and
- Those satisfied with travelling by bus (Figure 16).

Insights from the focus groups support these findings, with those who reported travelling by bus more often to have been frequent bus users prior to the £2BFC being introduced.

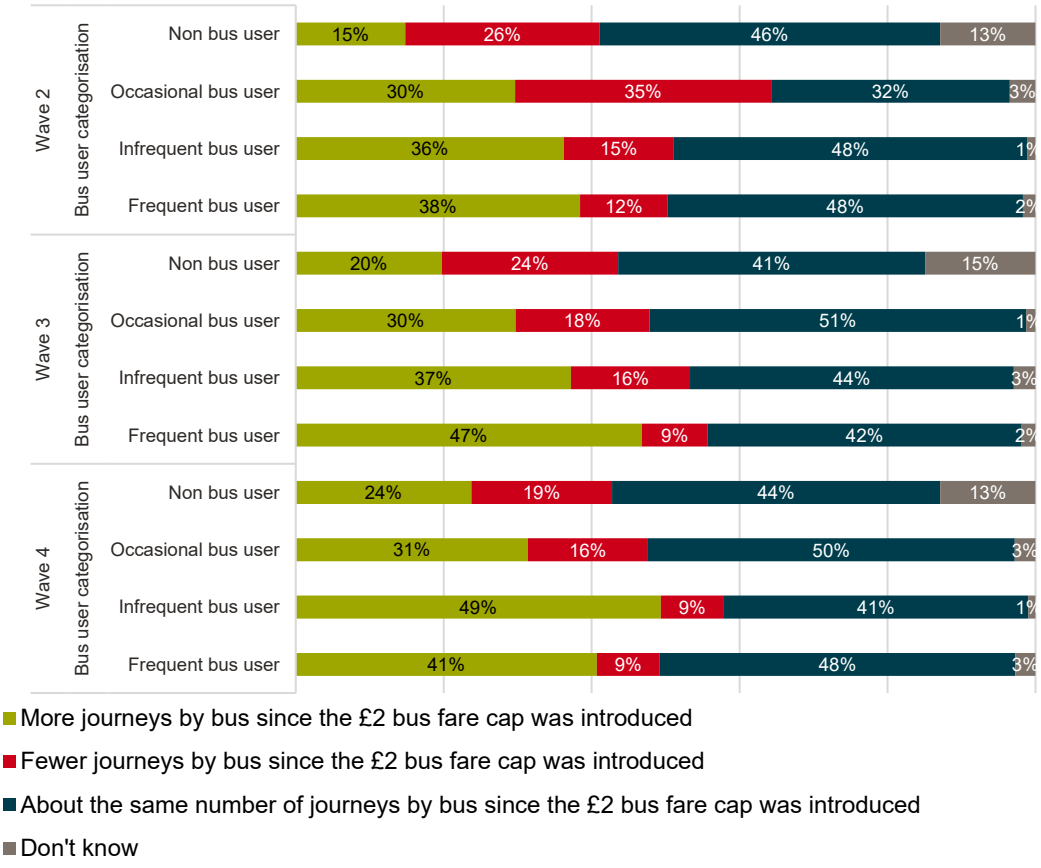
In turn, survey respondents with any of the following characteristics were more likely to report undertaking **fewer** bus journeys since the introduction of the £2BFC:

- Occasional bus users or non-bus users; and
- Those dissatisfied or neither satisfied nor dissatisfied with travelling by bus.

These findings were statistically significant and consistent across Waves 2–4 of the survey.

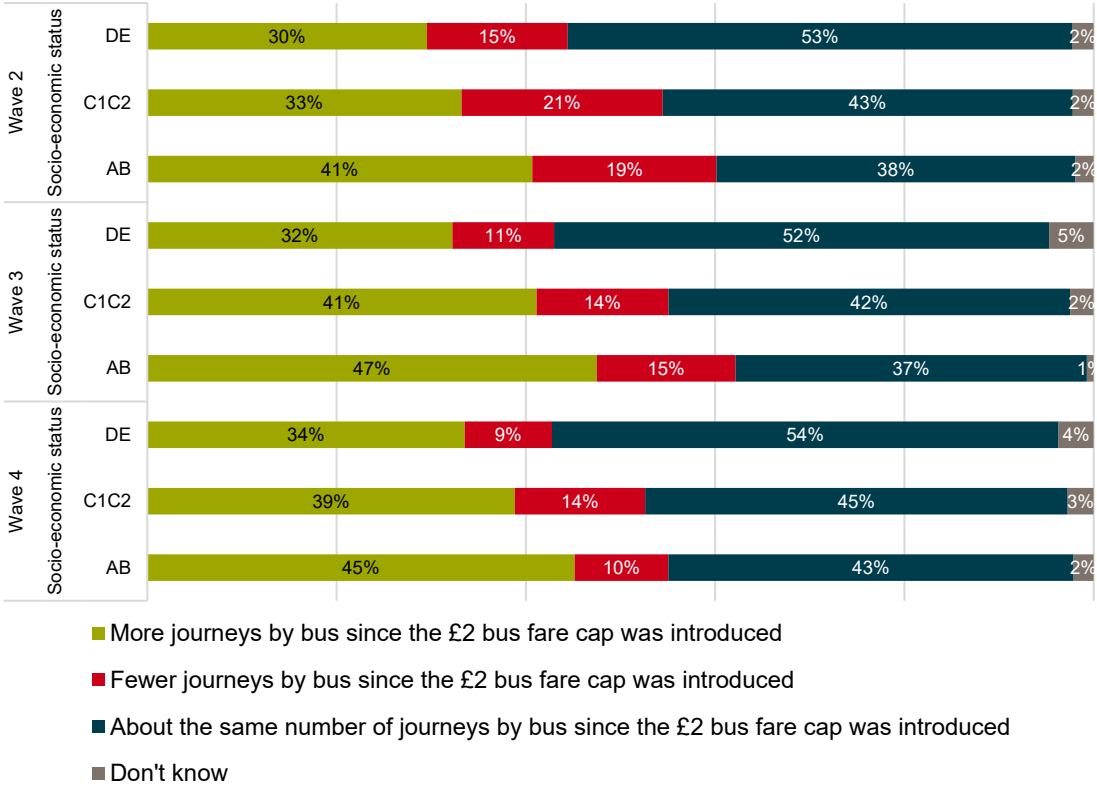
While not consistent across all survey waves, the analysis also demonstrated (statistically significant) variations in changes to bus travel frequency by gender (in Wave 2 and Wave 4), and disability status (Wave 4 only).

Figure 14 Thinking about your travel since the £2 Bus Fare Cap initiative was introduced on 1 January 2023, have you undertaken more, fewer, or about the same number of journeys by bus, compared to before the initiative? – responses across bus use frequency



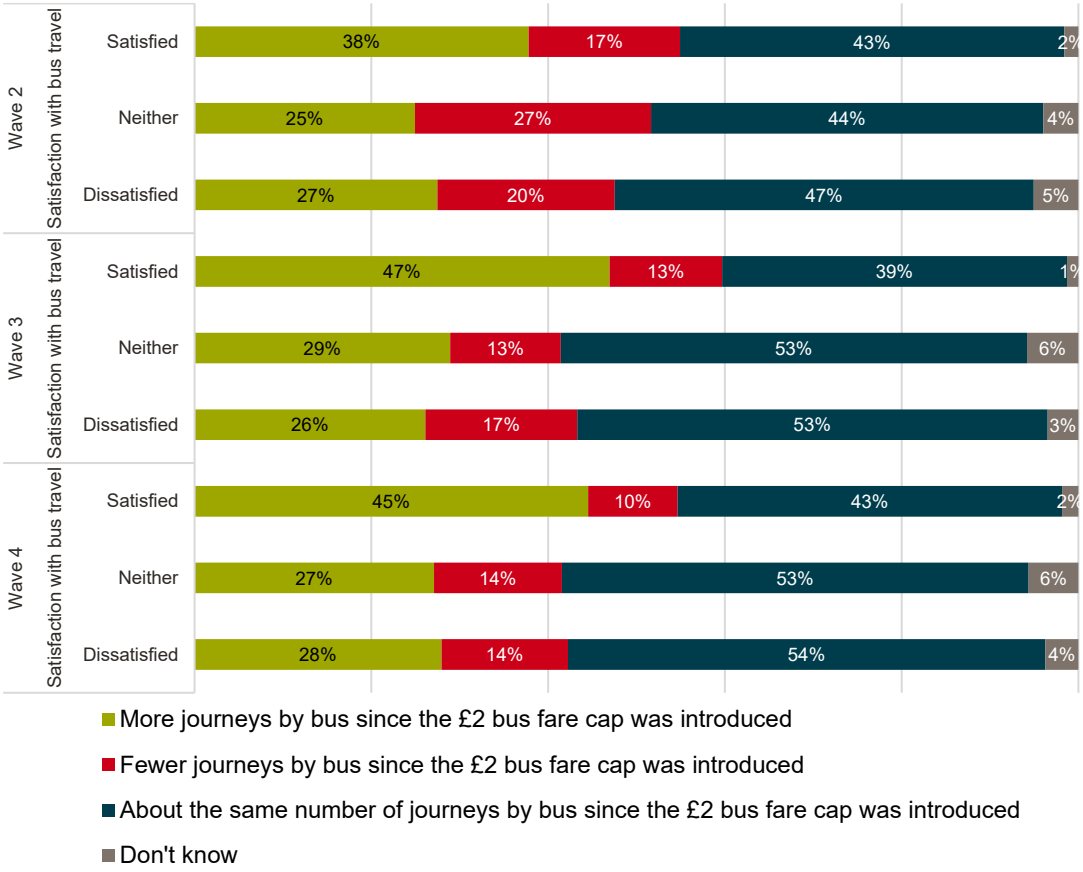
Source: *Wave 2 survey (Base = 1,201 – 1,204; those aware of the £2 Bus Fare Cap who have paid a £2 bus fare cap since the launch of the initiative); Wave 3 survey (Base = 1,569 – 1,590; those aware of the £2 Bus Fare Cap who have paid a £2 bus fare cap since the launch of the initiative); and Wave 4 survey (Base = 1,683 – 1,709; those aware of the £2 Bus Fare Cap who have paid a £2 bus fare cap since the launch of the initiative)*

Figure 15 Thinking about your travel since the £2 Bus Fare Cap initiative was introduced on 1 January 2023, have you undertaken more, fewer, or about the same number of journeys by bus, compared to before the initiative? – responses across socio-economic status



Source: *Wave 2 survey (Base = 1,201 – 1,204; those aware of the £2 Bus Fare Cap who have paid a £2 bus fare cap since the launch of the initiative); Wave 3 survey (Base = 1,569 – 1,590; those aware of the £2 Bus Fare Cap who have paid a £2 bus fare cap since the launch of the initiative); and Wave 4 survey (Base = 1,683 – 1,709; those aware of the £2 Bus Fare Cap who have paid a £2 bus fare cap since the launch of the initiative)*

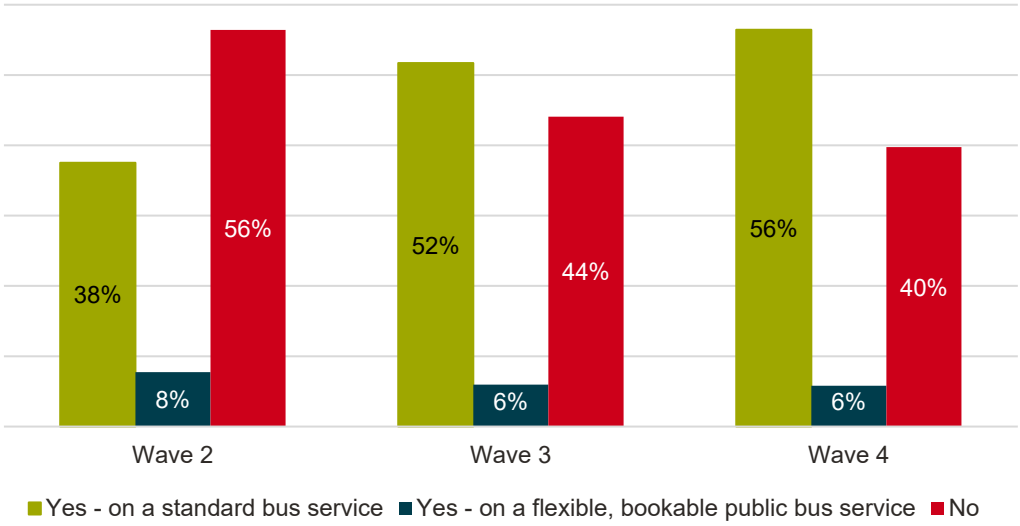
Figure 16 Thinking about your travel since the £2 Bus Fare Cap initiative was introduced on 1 January 2023, have you undertaken more, fewer, or about the same number of journeys by bus, compared to before the initiative? – responses across bus satisfaction levels



Source: *Wave 2 survey (Base = 1,201 – 1,204; those aware of the £2 Bus Fare Cap who have paid a £2 bus fare cap since the launch of the initiative); Wave 3 survey (Base = 1,569 – 1,590; those aware of the £2 Bus Fare Cap who have paid a £2 bus fare cap since the launch of the initiative); and Wave 4 survey (Base = 1,683 – 1,709; those aware of the £2 Bus Fare Cap who have paid a £2 bus fare cap since the launch of the initiative)*

Figure 17 demonstrates that, across Waves 2, 3 and 4 of the survey, there was an increase in the proportion of respondents who self-reported paying a £2 bus fare (i.e. they purchased a single ticket), with over half of respondents who were aware of the scheme reporting this in Wave 3 and Wave 4 (58% and 62%, respectively), compared to just under half (46%) who reported this in Wave 2.

Figure 17 Have you paid a £2 bus fare for a single bus journey since the launch of the national initiative on 1 January 2023?

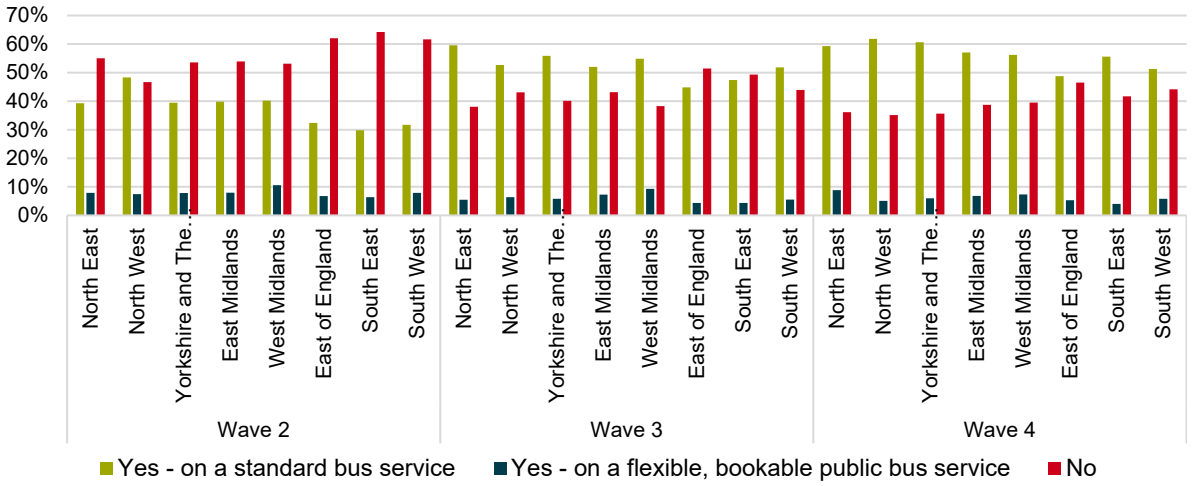


Source: *Wave 2 survey (Base = 2,763; those aware of the £2 Bus Fare Cap); Wave 3 survey (Base = 2,844; those aware of the £2 Bus Fare Cap); and Wave 4 survey (Base = 2,837; those aware of the £2 Bus Fare Cap)*

Across Waves 2, 3 and 4 of the survey, analysis consistently demonstrated (statistically significant) variations in take-up of the £2BFC by self-reported region of residence, rurality and access to a private vehicle. Specifically, Figure 18, Figure 19 and Figure 20 show:

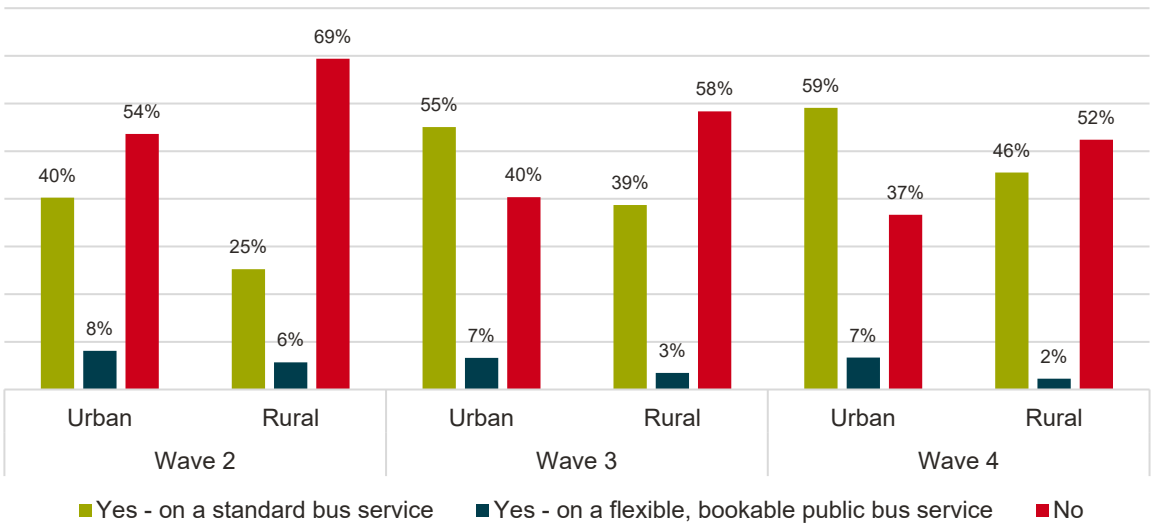
- Respondents living in the North were most likely to have paid a £2 Bus Fare Cap and those living in the East of England and the South were least likely.
- Respondents living in urban areas were more likely to have paid a £2 Bus Fare Cap than those living in rural areas.
- Respondents without access to a car, van, motorbike or moped, as a driver, were more likely to have paid a £2 Bus Fare Cap than those with access.

Figure 18 Have you paid a £2 bus fare for a single bus journey since the launch of the national initiative on 1 January 2023? – responses by region



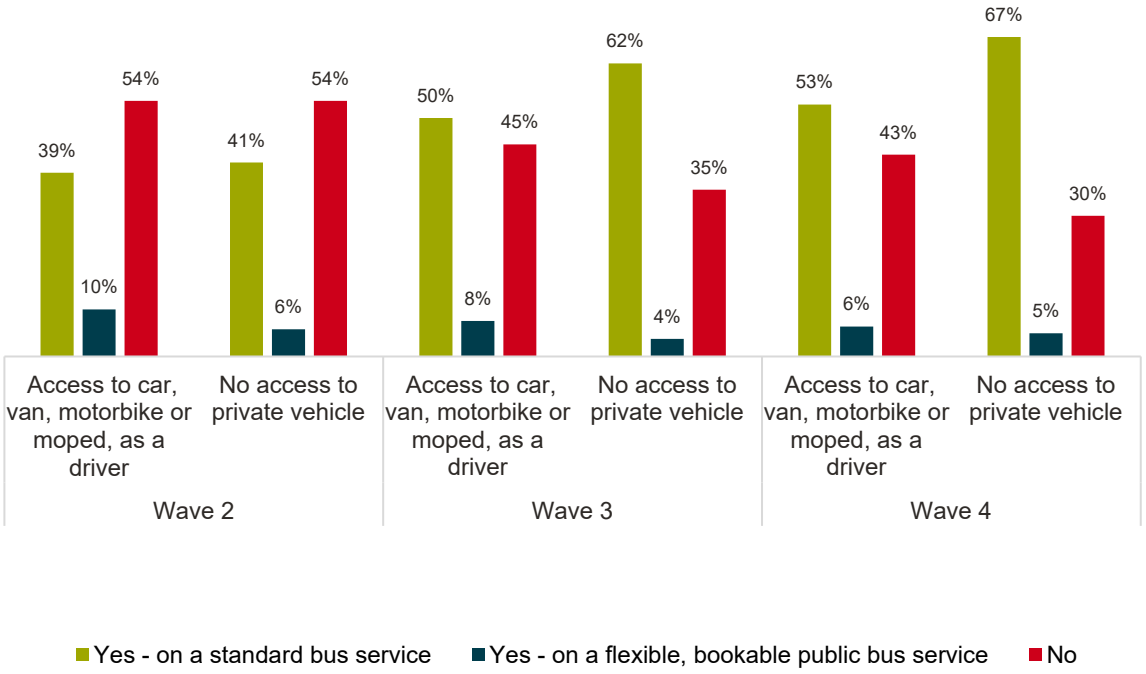
Source: *Wave 2 survey (Base = 2,763; those aware of the £2 Bus Fare Cap); Wave 3 survey (Base = 2,844; those aware of the £2 Bus Fare Cap); and Wave 4 survey (Base = 2,837; those aware of the £2 Bus Fare Cap)*

Figure 19 Have you paid a £2 bus fare for a single bus journey since the launch of the national initiative on 1 January 2023? – responses by rurality



Source: *Wave 2 survey (Base = 2,756; those aware of the £2 Bus Fare Cap); Wave 3 survey (Base = 2,838; those aware of the £2 Bus Fare Cap); and Wave 4 survey (Base = 2,832; those aware of the £2 Bus Fare Cap)*

Figure 20 Have you paid a £2 bus fare for a single bus journey since the launch of the national initiative on 1 January 2023? – responses by access to a private vehicle



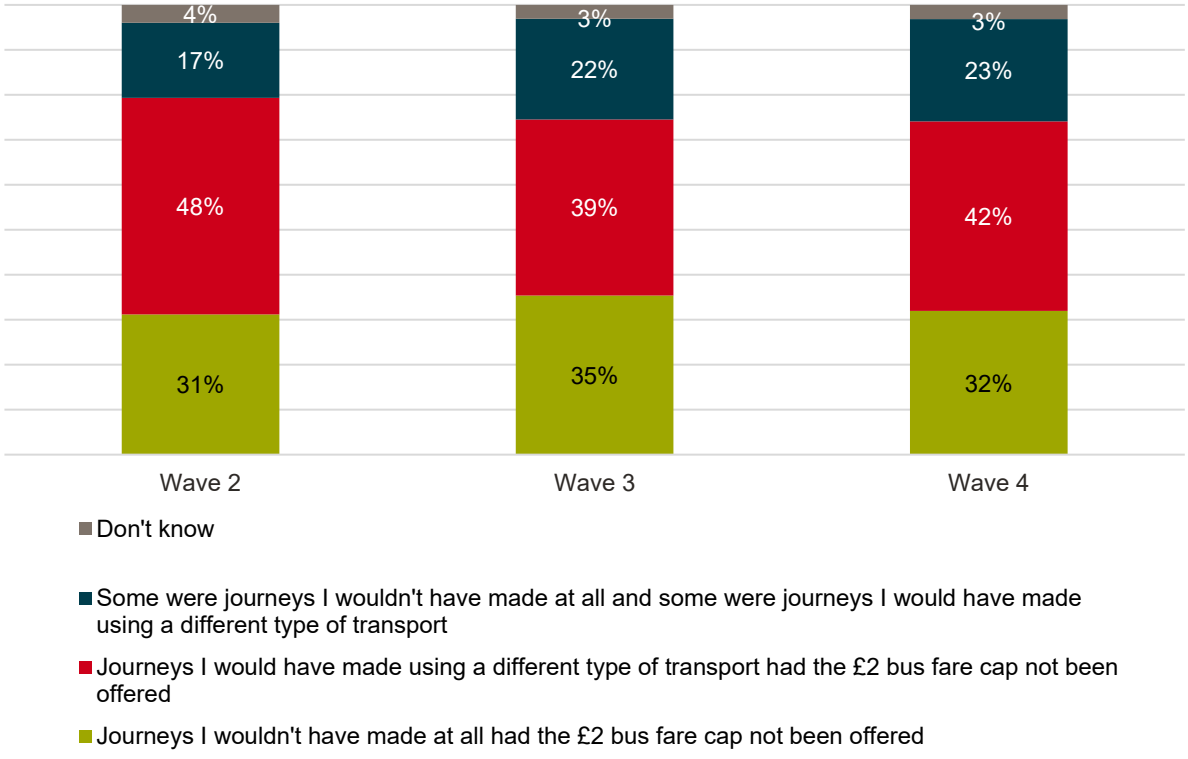
Source: *Wave 2 survey (Base = 2,763; those aware of the £2 Bus Fare Cap); Wave 3 survey (Base = 2,844; those aware of the £2 Bus Fare Cap); and Wave 4 survey (Base = 2,837; those aware of the £2 Bus Fare Cap)*

5.5 Estimated impacts of the £2BFC on modal shift

Respondents to Waves 2, 3 and 4 of the survey who reported making more bus journeys since the launch of the £2BFC were asked whether these additional bus journeys were trips they would have made with a different type of transport or trips that they would not have made at all had the £2BFC not been offered.

Figure 21 shows that, across all survey waves, respondents most commonly reported that they would have previously made additional bus journeys using a different type of transport. There was a slight decrease in the proportion of respondents who reported this across the three waves, with around half (48%) of the respondents reporting this in Wave 2, compared to around 40% that reported this in Wave 3 and Wave 4 (39% and 42%, respectively). Overall, these findings could suggest that the £2BFC has created some modal shift.

Figure 21 Thinking about the additional bus journeys you undertake since the launch of the £2 Bus Fare Cap for a single bus journey, are these...

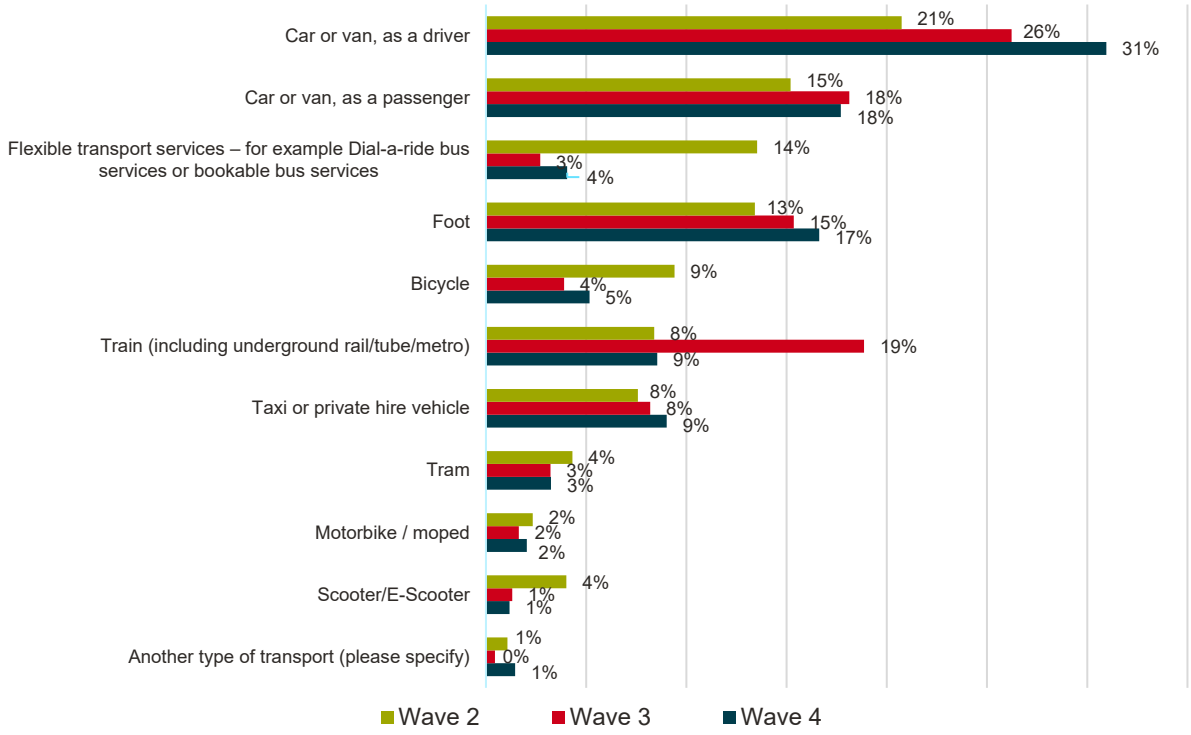


Source: Wave 2 survey (Base = 417; those who have undertaken more bus journeys since the launch of the £2 Bus Fare Cap); Wave 3 survey (Base = 651; those who have undertaken more bus journeys since the launch of the £2 Bus Fare Cap); and Wave 4 survey (Base = 671; those who have undertaken more bus journeys since the launch of the £2 Bus Fare Cap)

Figure 22 shows that these respondents most commonly reported replacing journeys that they would have made by car or van as a driver with bus trips, with the proportion of respondents who reported this mode switch increasing from 21% in Wave 2 to 26% in Wave 3 and 31% in

Wave 4. A similar proportion of respondents across all three waves also reported replacing journeys by car or van as a passenger (Wave 2: 15%; Wave 3: 18%; and Wave 4: 18%). Walking and cycling journeys were also commonly replaced with bus trips, although to a lesser extent than car travel.

Figure 22 If the £2 Bus Fare Cap for bus travel had not been offered, what type of transport would you most likely have used for these journeys?



Source: Wave 2 survey (Base = 270; those who would have made their additional journeys by another transport mode had the £2 Bus Fare Cap not been offered); Wave 3 survey (Base = 400; those who would have made their additional journeys by another transport mode had the £2 Bus Fare Cap not been offered); and Wave 4 survey (Base = 436; those who would have made their additional journeys by another transport mode had the £2 Bus Fare Cap not been offered)

Insights from the focus groups provide greater detail on these findings, with participants who were frequent bus users before the introduction of the £2BFC tending to suggest that the cap had generated new bus trips. By comparison, participants who had begun travelling by bus for the first time or after a long period as a result of the £2BFC tended to note that the journeys they were now making by bus were replacing journeys that had previously been undertaken by car, private hire or tram. These participants cited the reduced cost of bus travel, especially when compared to these other modes, as an incentive to travel by bus, as well as not having to consider parking or traffic.

> "Cost is important. I would usually take the car, but when you take in the cost of parking charges, which are going up, it's getting to [be] a lot cheaper to go by bus with a £2.00 cap. It's significantly made a difference for me." (Female, 60+, Yorkshire and the Humber)

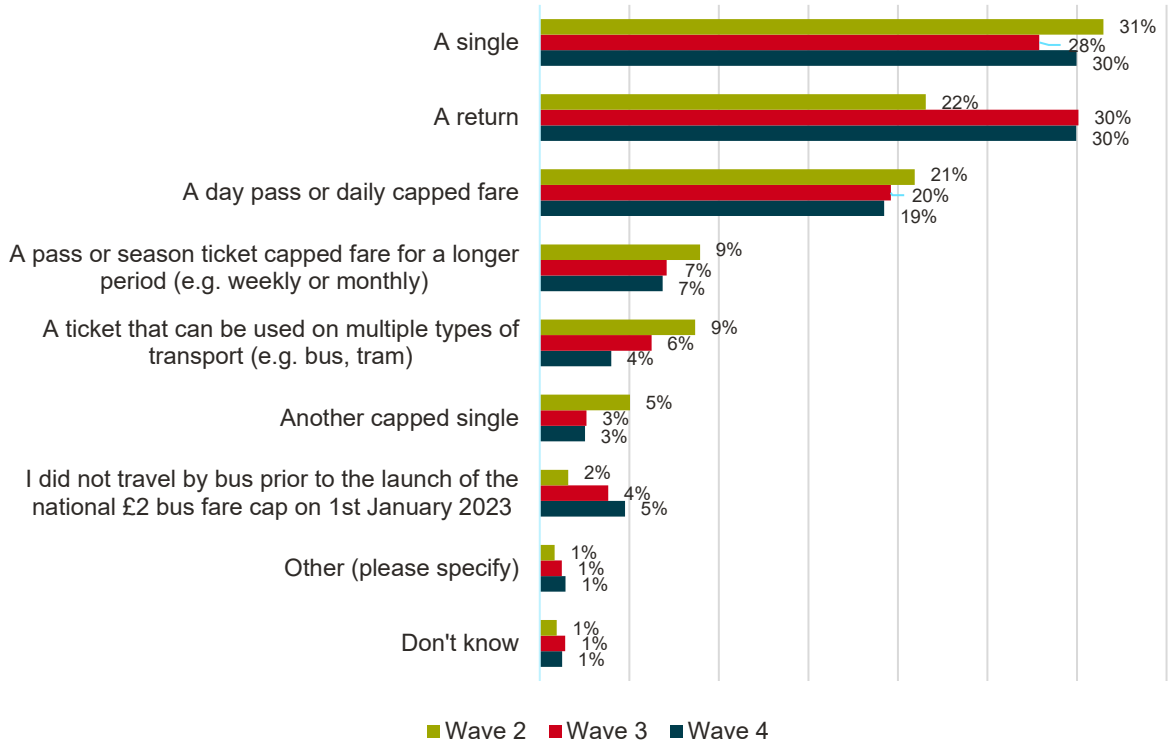
5.6 Estimated impacts of the £2BFC on ticket substitution

Based on the operator data, the estimated average cost per trip in 2022 on return, daily, weekly and monthly tickets was below £2. While this should be interpreted cautiously as it relies on operator assumptions on the average number of trips per ticket, it does provide an indication that, on average, passengers using these tickets already had a cost per trip of less than £2. Furthermore, the operator data suggests that prior to the introduction of the £2BFC, around 60% of trips were being made using these tickets. This means that a large proportion of bus travellers may not benefit from the £2BFC and would not change their ticket purchasing behaviours. As the operator data does not include trips made on concessionary passes, this implies that an even higher proportion of trips may not be impacted by the £2BFC.

However, there is a significant variation in the cost of period tickets across the country. The National Bus Fare Survey (PAS Partnership, 2023) carried out in 2022, for example, found that the cost of a weekly ticket in the UK ranged from £9.60 to £43.[24] The number of trips made per ticket also varies across individuals. This means that there may be a proportion of people for whom switching from their current bus ticket type to using £2 singles may be cheaper. There may also be non-financial benefits, for example greater flexibility or avoidance of a large upfront cost for period tickets. Evidence from the secondary and primary data was brought together to explore the extent of ticket substitution due to the £2BFC (see Figure 23).

[24] TAS Partnership (2023). 7th TAS National Bus Fares Survey: 2022

Figure 23 Prior to the launch of the national £2 Bus Fare Cap on 1 January 2023, what type of ticket did you usually use for your bus travel?



Source: Wave 2 survey (Base = 1,135; those who have paid a £2 Bus Fare Cap for a single bus journey); Wave 3 survey (Base = 1,501; those who have paid a £2 Bus Fare Cap for a single bus journey); and Wave 4 survey (Base = 1,606; those who have paid a £2 Bus Fare Cap for a single bus journey)

Respondents to the survey who had purchased a £2 bus fare were asked which bus fare they had purchased prior to the £2BFC (Figure 23). The most common response was single bus tickets (Wave 2: 31%; Wave 3: 28%; Wave 4: 30%). This supports the finding that the scheme has primarily benefited bus users who previously purchased single and return bus tickets.

However, there were a considerable proportion of respondents who used to purchase returns (Wave 2: 22%; Wave 3: 30%; Wave 4: 30%) and a smaller proportion of people who reported that they used to travel on daily or season tickets.

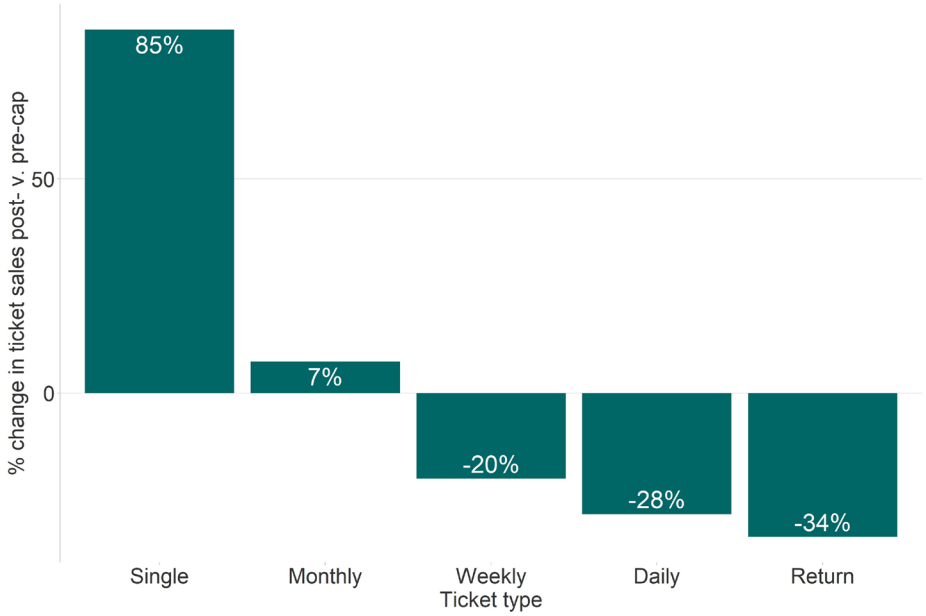
These survey results are supported by data provided by operators. Sale of single tickets was 85% higher for the period from January to October 2023 compared to January to October 2022. This increase was even larger, 140%, for those single tickets that were more than £2 prior to the implementation of the cap. This is significantly higher than the increase in overall bus patronage (13%), suggesting that the £2BFC could have led to ticket substitution.

The analysis of operator data suggests that the longer the ticket duration, the less likely it was that the scheme impacted sales of those tickets (Figure 24). For example, the largest fall in

ticket sales was observed in return tickets (34%), followed by daily (28%) and weekly (20%) tickets. The number of monthly tickets actually saw an increase of 7% in 2023.

This trend may reflect the degree of substitutability between single tickets and each of the other ticket types. Return tickets are generally the most substitutable with single tickets as they are valid for only two journeys, which can easily be replaced by two single tickets. However, passengers who purchase monthly passes may be more frequent bus users and moving to £2 single tickets may not offer a financial saving or introduce an inconvenience.

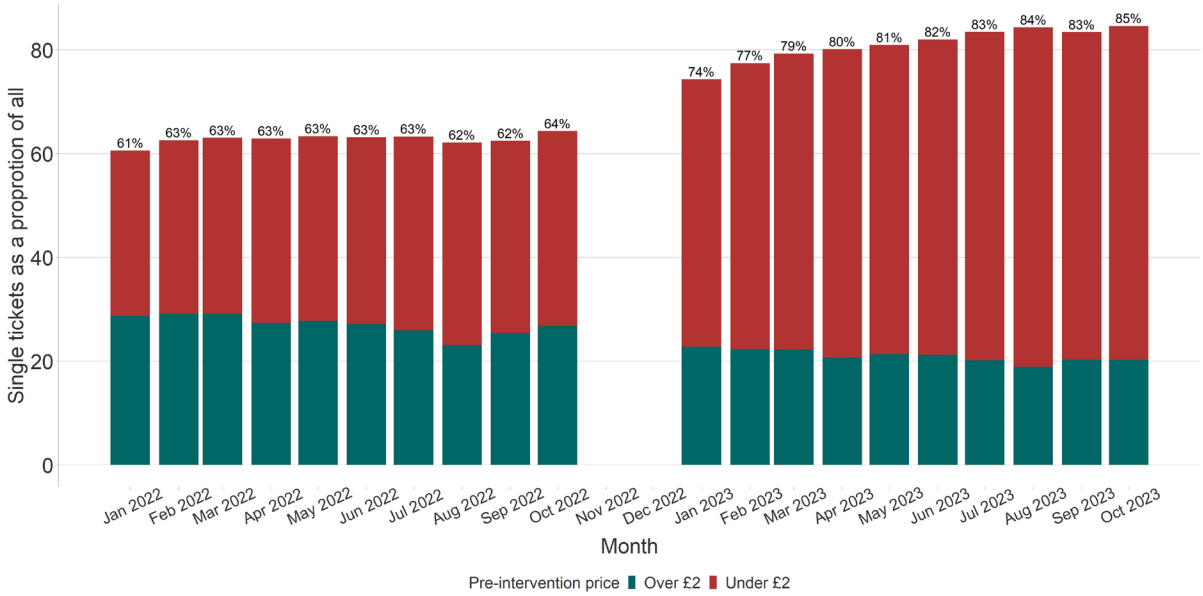
Figure 24 Percentage change in the number of tickets sold, by ticket type, from January to October 2022 to January to October 2023



Source: Operator data

Figure 25 shows that, across 2022, single tickets accounted for between 61% and 64% of all ticket sales made by participating operators. This proportion increased to 74% in January 2023 and exhibited continued growth up to 85%. This suggests that in October 2023 more than eight out of 10 tickets sold (by volume, i.e. number of tickets sold rather than revenue) by the operators were single tickets. The increase in the sale of single tickets was primarily driven by an increase in tickets that had a pre-cap price of over £2, i.e. those that were impacted by the introduction of the £2BFC.

Figure 25 Single tickets as a proportion of all ticket sales, by month, separated by single tickets that had a pre-intervention price over and under £2



Source: Operator data

Note: November and December 2022 excluded in line with the remainder of the analysis

6 Impacts of the £2 Bus Fare Cap on cost of living over the first 10 months

Key messages

- **The evidence suggests that the scheme has supported the cost of living by reducing travel costs.** Analysis of bus operator data suggests that over the first 10 months £2BFC led to a 27% reduction in the price of single tickets that had cost more than £2 before £2BFC was introduced (although it should be noted that these made up less than half of total pre-£2BFC bus trips). The survey suggests that 67%–73% of people who would have travelled using a different mode to the bus before the fare cap have saved money on their overall travel costs due to the £2BFC. Findings from focus groups with bus users to inform this evaluation suggest that those on lower incomes have generally seen a greater positive financial impact.

6.1 Average saving

One of the primary objectives of the £2BFC scheme was to support passengers with the ongoing cost of living crisis by reducing the cost of bus travel.

Table 6 shows, for operators participating in the £2BFC, the average cost per trip prior to the implementation of the fare cap (January to October 2022) compared to the average cost per trip following its implementation (January to October 2023).

Table 6 Average fare savings following the implementation of the fare cap

Ticket type	Pre-cap average yield	Post-cap average yield	Weighted average saving (%)
All ticket types	£1.49	£1.40	6.3%
All single tickets	£2.15	£1.83	14.9%
Single tickets with a pre-cap price of more than £2	£2.73	£2.00	26.8%

Source: Operator data
Note: Based on the revenue and ticket sales data provided by Big and LSME participating operators

The table shows that, on average, single tickets that were affected by the fare cap had an average price of £2.73 in 2022. Following the implementation of the cap, this average price was reduced to £2, implying an average saving of 26.8%. When looking across *all* ticket types,

the average saving was 6.3%. It should be noted, however, that these figures refer to average fares – in practice, there is significant variation in the fares paid for single tickets. For example, the National Bus Survey 2022 (TAS Partnership, 2023)[25] suggested that for a sample of three-mile bus trips fares ranged from £0.90 to £4.50.

Econometric analysis was carried out using data from operators to understand the extent to which patronage changed for different levels of fare savings, both in terms of absolute (difference between the pre-cap fare and £2) and relative (% reduction on pre-intervention fare) saving.

On the basis of the data available, the indicative analysis suggests that for an average one pence fare saving, observed bus patronage may have increased by around 0.12%.[26] Looking at relative savings, the results suggest that, for an additional saving of 1% of the pre-cap fare, observed bus patronage increased by an estimated 0.56%.[27] For example, using these estimations, a £1 reduction in the average fare from £3 to £2 would represent a 33% bus fare saving and subsequently, may be associated with an 18.5% increase in bus patronage.[28] However, a similar £1 reduction in the average fare from £4 to £3 represents a 25% average bus fare saving, and may be associated with a 14% increase in bus patronage.[29] Therefore, this implies that the same absolute saving can have varying patronage impacts depending on the scale of the saving relative to the baseline fare.

It is important to note, however, that any relationship between observed average saving and patronage is unlikely to be linear, such that a 50 pence saving from £2.50 to £2 is unlikely to elicit the same change in behaviour as a 50 pence saving from £8 to £7.50. As such, these estimates should be considered as illustrative only as there are limitations in the data, and so should not be used beyond the context of this £2BFC scheme.

6.2 Financial impact on passengers

Figure 26 shows that, prior to the implementation of the £2BFC, 43% of bus users who responded to Wave 1 of the survey had anticipated that the fare cap would have a positive impact on how much of their income they spent on travelling by bus. A third of all survey respondents had anticipated a positive impact on how much of their income they would have for other expenses and on how much disposable income they would have for other spending or saving (33% each).

25 https://taspartnership.co.uk/wp-content/uploads/2018/02/TAS-7th-National-Fares-Survey-2022.pdf

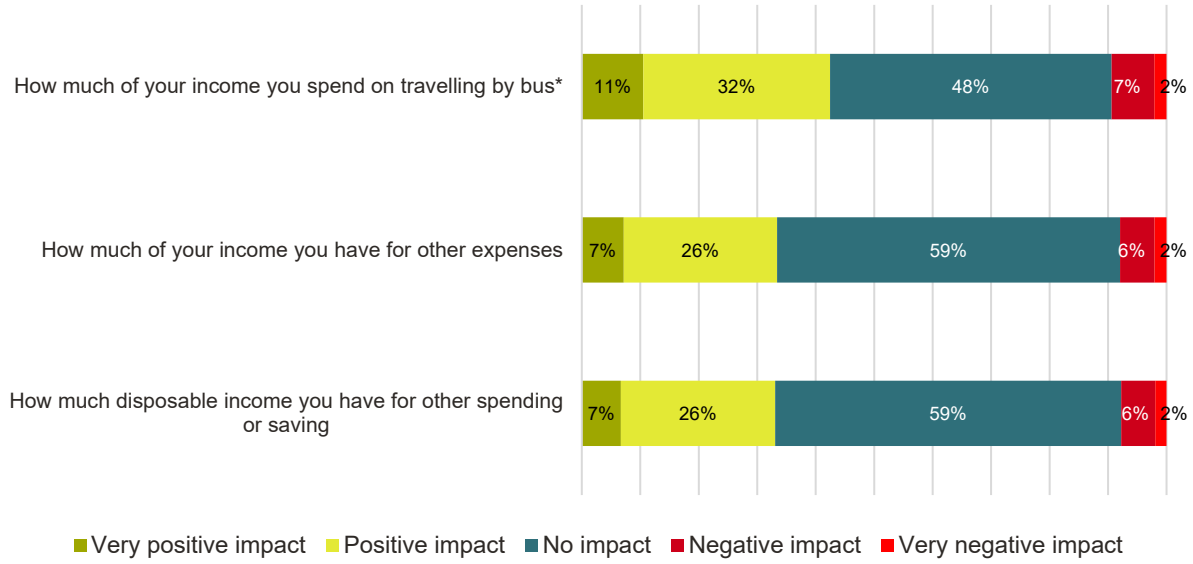
26 Statistically significant at the 5% level

27 Statistically significant at the 5% level

28 0.56% * 33% = 18.5%

29 0.56% * 25% = 14.0%

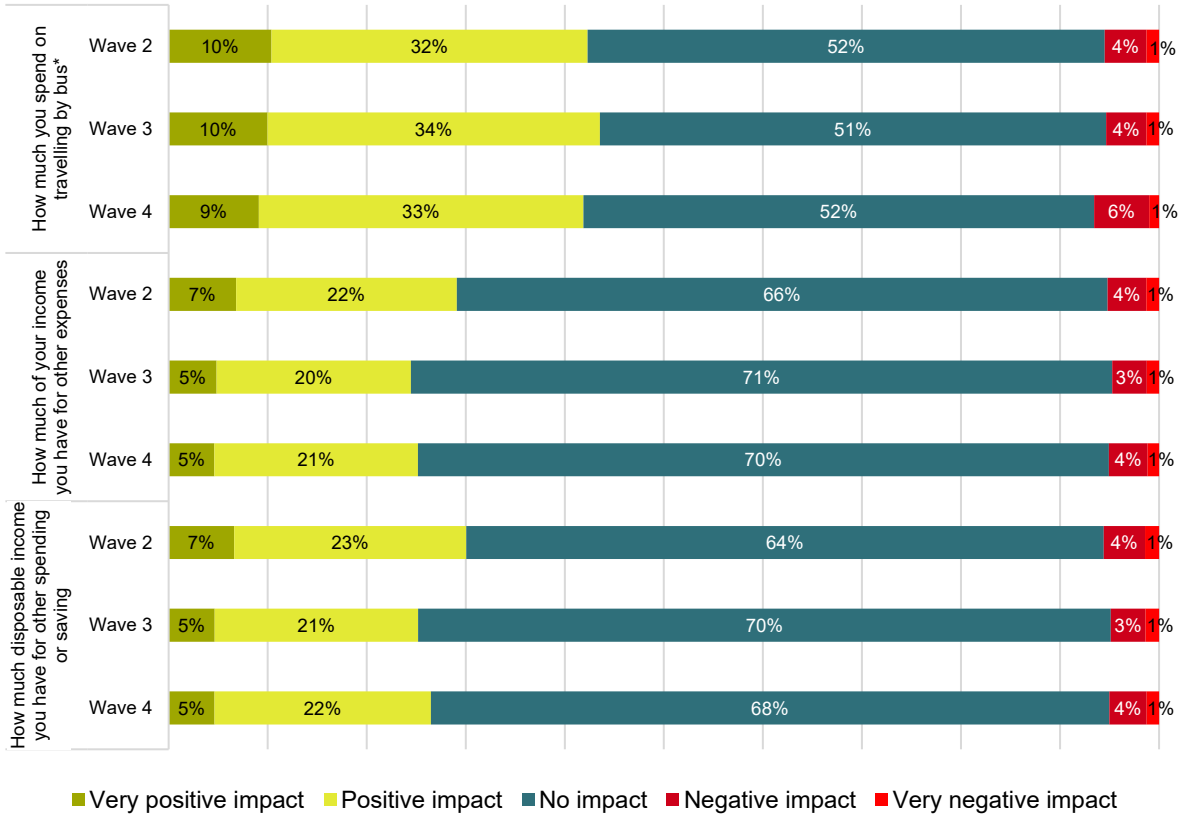
Figure 26 To what extent, if at all, would a £2 Bus Fare Cap for single bus journeys have an impact on...? – Wave 1



*Source: Wave 1 survey (Base = 4,014; full sample size; * Base reduced to 1,761; frequent and infrequent bus users only)*

Figure 27 shows that, once the £2BFC had been implemented, similar proportions of respondents to the survey reported that the scheme was having real positive impacts on the level of income they spent on travelling by bus (around 40% reported a positive impact across Waves 2–4), the level of income they had for other expenses (e.g. bills, rent, other travel costs) (around 30% across Waves 2–4) and the level of income they had for other spending or saving (around 30% across Waves 2–4). This would suggest that the perceived positive financial impacts of the scheme were realised once it was launched.

Figure 27 To what extent, if at all, would a £2 Bus Fare Cap for single bus journeys have an impact on...? – Waves 2, 3, and 4

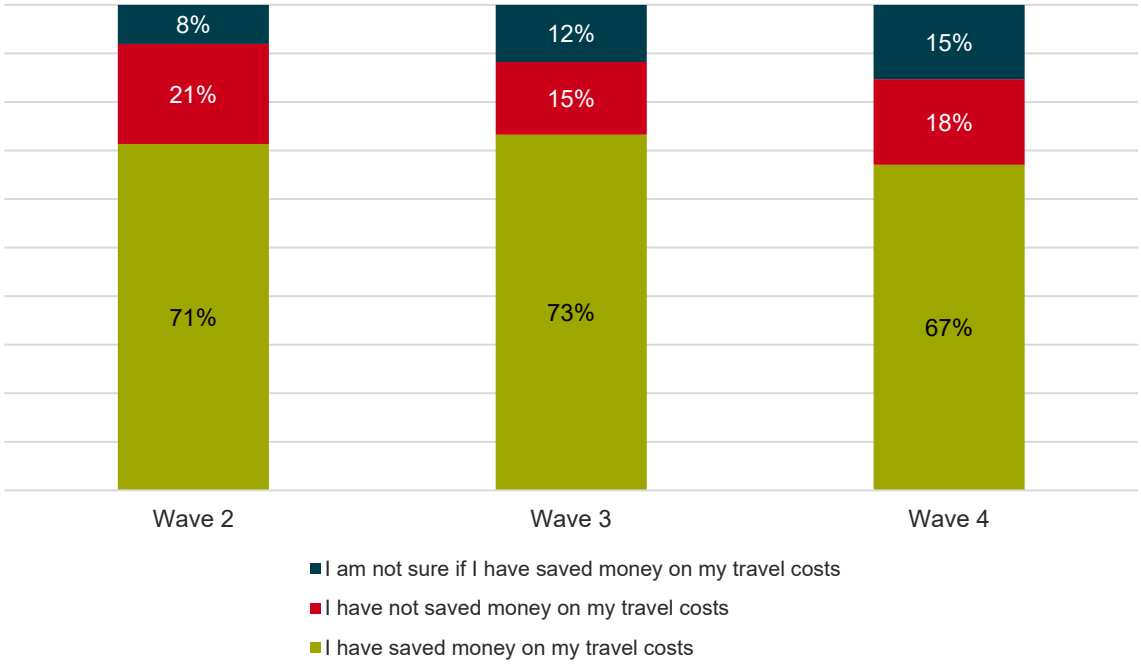


*Source: Wave 2 survey (Base = 4,007; full sample size; * Base reduced to 1,763; frequent and infrequent bus users only); Wave 3 survey (Base = 4,011; full sample size; * Base reduced to 1,719; frequent and infrequent bus users only); and Wave 4 survey (Base = 4,014; full sample size; * Base reduced to 1,790; frequent and infrequent bus users only)*

Respondents who said they had made additional bus journeys since the launch of the £2BFC which they otherwise would have made using a different type of transport were asked to what extent a switch to the bus had had a financial impact on them.

Figure 28 shows that, while the majority of these respondents reported having saved money on travel costs as a result of switching to bus journeys across Waves 2, 3 and 4, there was a slight decrease in the proportion of respondents who reported this over the course of the last two survey waves, with 67% reporting that they had saved money on their travel costs in Wave 4 compared to 73% in Wave 3. However, these findings would suggest that respondents had saved money on their travel costs because of increased bus travel due to the £2BFC, with an overall decrease in the proportion of respondents stating that they had not saved money on their travel costs also observed (although this is on a small sample).

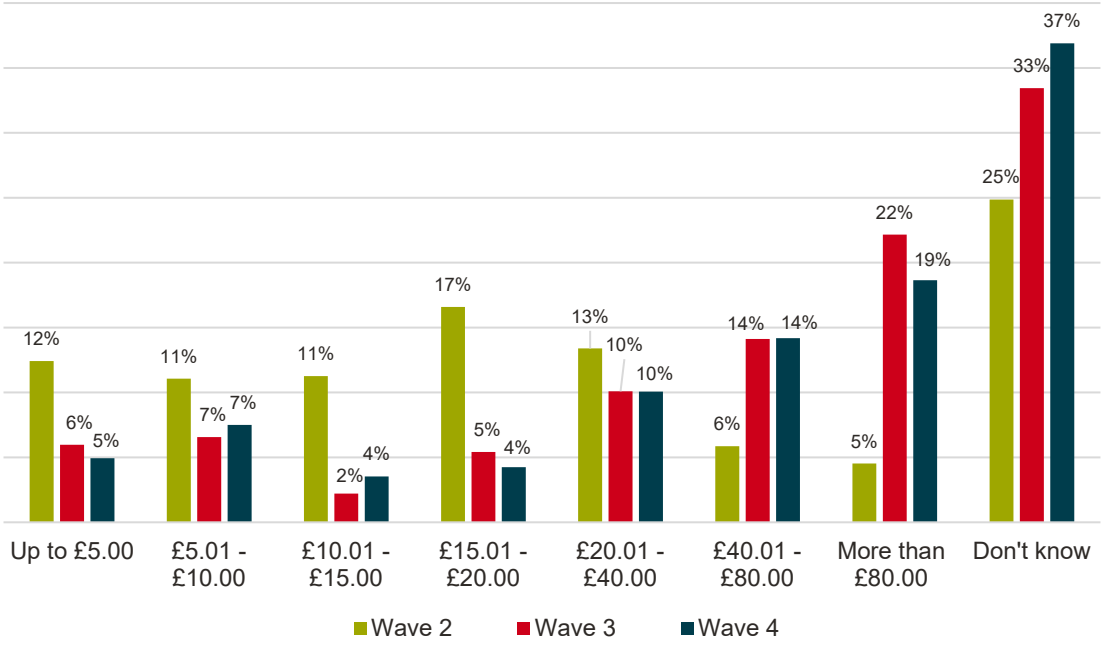
Figure 28 What financial impact, if any, has changing your journeys to bus had on you?



Source: Wave 2 survey (Base = 270; those undertaking additional bus journeys since the launch of the fare cap which they otherwise would have made using a different type of transport); Wave 3 survey (Base = 400); and Wave 4 survey (Base = 436)

Figure 29 shows the level of overall travel cost savings self-reported by survey respondents over Waves 2, 3 and 4. As could be expected, respondents reported saving larger amounts of money on travel as a result of increased bus travel due to the £2BFC as the scheme progressed over time. Please note the small sample base here.

Figure 29 Please can you tell us approximately how much you have saved overall from the fare cap?



Source: Wave 2 survey (Base = 193; those who reported having saved money on travel costs as a result of the fare cap); Wave 3 survey (Base = 293;); and Wave 4 survey (Base = 292)

Participants in the focus groups reported reductions in the cost of bus travel and reduced spending on other modes as a result of the £2BFC, both of which they felt had eased the cost of living. These outcomes had resulted in varying degrees of financial impact for participants, based on:

- Income level – those on lower incomes had generally seen a greater positive financial impact.
- Reliance on bus – those who were reliant on the bus as their main form of transport had generally seen a greater positive financial impact.
- Area of residence – those in more rural areas tended to have seen a greater positive financial impact due to the high cost of bus fares in rural areas and because journeys tended to be of longer distance.

> "Definitely with the cost of living going up, [cost has] been a massive factor in everything. So when this [£2 bus fare] came into play, I was like, oh, brilliant… every little bit does help out." (Female, 35–59, Yorkshire and the Humber)
>
> "I think you're more likely to jump on and off [the bus] if it's only two pound… especially with the cost of living at the moment, everyone's watching the penny, so £2.00 you're going to think, oh, it's only £2.00, I'll jump on there." (Female, 35–59, South East)

Operators interviewed recognised the cost savings provided to rural passengers in particular.

> "The average cost is £3.45 to £6.50 so everyone in rural areas is over the moon." (Operator representative)

As a result of the £2BFC's perceived positive financial outcomes, participants in the focus groups noted that they were now able to spend money in different ways. These changes included:

- Being able to make additional, discretionary bus journeys for leisure, as well as essential journeys;
- Being able to purchase fresh, healthy food for the first time; and
- Spending more money on social occasions, for example spending on night life in the local area.

Focus group participants estimated cost savings of up to £80 a month.

> "That's £80 a month just on transport to appointments, getting out and about to do shopping and things like that. I'm living a lot better and I'm able to afford much better food than I was before because that chunk of money that I was having to spend on taxis and stuff is now much more freed up […] I've got fresh fruit and veg in my fridge which never happened before [the £2 Bus Fare Cap was introduced]." (Male, 18–34, North West)
>
> "I'm actually putting [my money] into useful bits of the economy instead of like [spending] a lot on petrol. [I'm] spending it on nightlife, in cafes and things like that which would also be better for the environment than me spending it on petrol." (Male, 18–34, North West)

7 Potential influences on behavioural change associated with the £2 Bus Fare Cap

Key messages

- **Awareness of the scheme.** There was a material increase in the number of survey respondents who were aware of the £2BFC scheme, from just under two-fifths in Wave 1 of the survey to just under three-quarters in Wave 4 of the survey.
- **Other factors that may have impacted patronage**. Insights from both the survey and the focus groups found that there are a range of factors that influence decisions on whether or not to travel by bus. Around two-fifths of survey respondents reported that, while the £2BFC was the main reason for their increased bus use since the launch of the initiative, there were also other reasons for this change.[30] Insights from survey respondents who had not increased their bus use and those who took part in focus groups show that factors which influence a choice to travel by bus may include, but are not limited to, satisfaction with bus travel, service levels, service reliability and cost of living.
- **Unintended impacts.** Operators put forward a number of unintended passenger effects of the £2BFC which could have had some influence on behavioural change in response to the scheme. These included delays in boarding times due to more on-bus ticket purchases, longer journeys being made by bus and changes to concessionary pass holder travel patterns.

This section sets out detailed findings regarding the following additional evaluation questions, along with findings on public awareness of the scheme to date:

- What is the level of public awareness of the national £2 Bus Fare Cap and how does this differ across people?
- What are the other factors that have impacted passenger numbers alongside the £2 Bus Fare Cap?
- What are the impacts of the £2 Bus Fare Cap on bus operators and service provision?
- What are the perceived impacts of ending the £2 Bus Fare Cap? What other outcomes and unintended effects arise as a result of the £2 Bus Fare Cap?

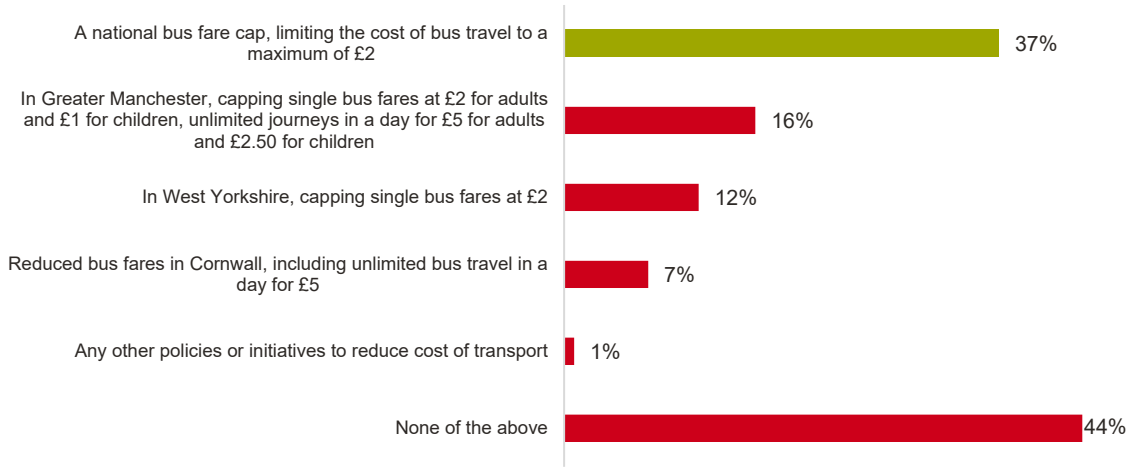
[30] Survey respondents who reported making more journeys after the introduction of the scheme were asked whether the £2BFC was 'the only reason I make additional bus journeys', 'the main reason I make additional bus journeys, but there are other reasons too', 'one of the reasons I make additional bus journeys, but not the main one', 'not why I make additional bus journeys', and 'don't know'.

7.1 Awareness of the scheme

Findings across all four survey waves suggest that there has been an increase in the level of awareness of the £2BFC. While 37% of respondents reported having heard of the fare cap in Wave 1 (see Figure 30), this increased to around 70% of respondents being either fully or somewhat aware of the fare cap across Waves 2, 3 and 4 (Wave 2: 69%; Wave 3: 71%; Wave 4: 71%; see Figure 31). Additionally, findings suggest a slight increase in the proportion of respondents who reported being fully aware of the fare cap, with this proportion increasing from 31% in Wave 2 to 39% in Wave 4.

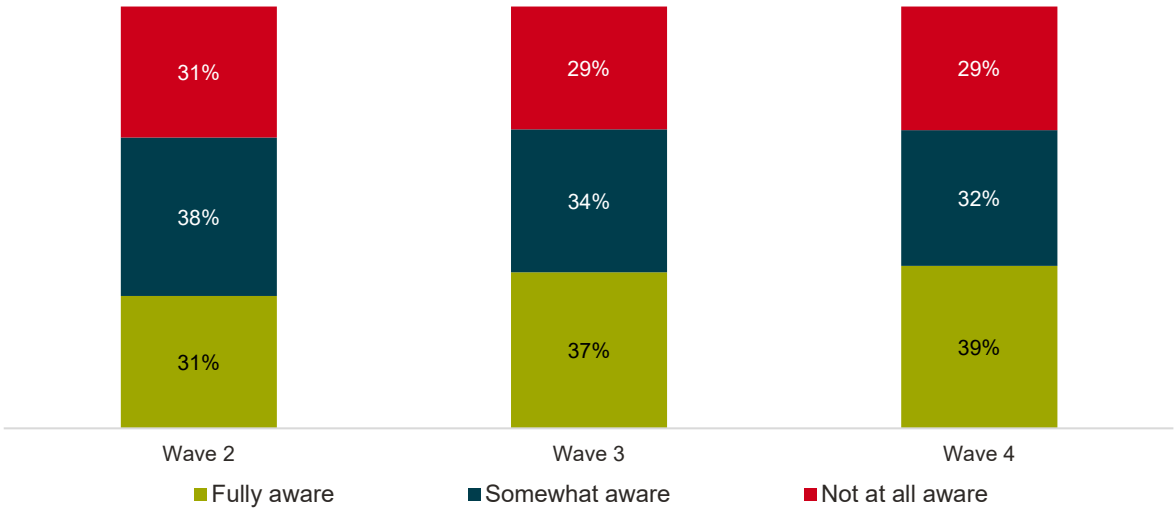
While evidence suggests that awareness has increased as the scheme has progressed, evidence from the survey does not suggest that this translates to an increase in bus travel frequency, with survey findings on patronage remaining consistent across waves (described in Section 5).

Figure 30 Have you heard of any of the following?



Source: *Wave 1 survey (Base = 4,014; full survey sample)*

Figure 31 To what extent, if at all, are you aware of a bus ticket initiative in place between 1 January 2023 and 31 December 2024 that caps the price you pay for a single bus journey to a maximum of £2?



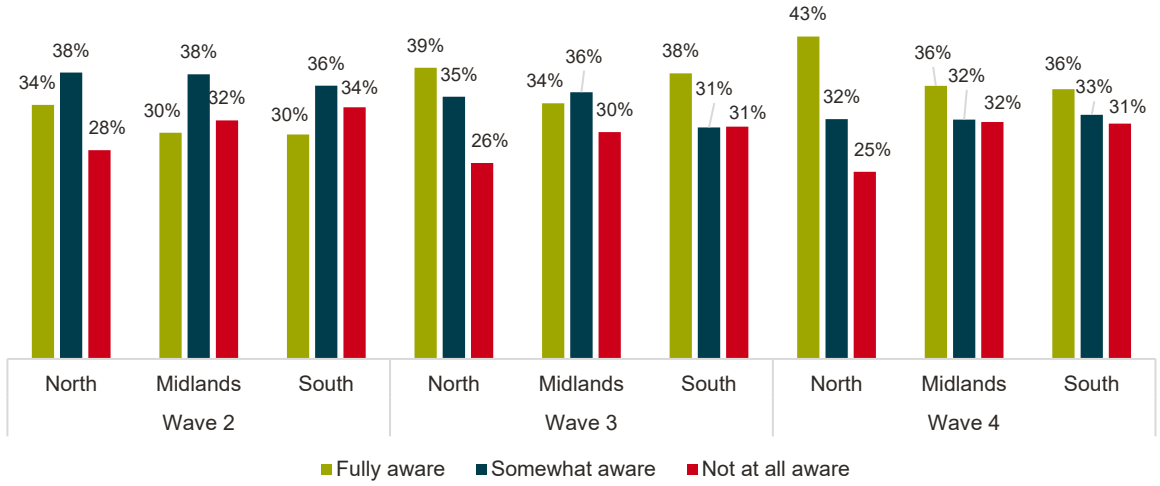
Source: *Wave 2 survey (Base = 4,007; full survey sample); Wave 3 survey (Base = 4,011; full survey sample); and Wave 4 survey (Base = 4,014; full survey sample)*

Across Waves 2, 3 and 4 of the survey, analysis consistently demonstrated (statistically significant) variations in awareness of the £2BFC initiative by:

- Age – older respondents were significantly more likely to be aware of the £2BFC than younger respondents;
- Bus use – frequent bus users were significantly more likely to be aware of the £2BFC than infrequent and non-bus users;
- Bus pass ownership – bus pass owners were significantly more likely to be aware of the £2BFC than non-bus pass owners; and
- Region – Figure 32 shows that respondents living in the North were significantly more likely to report being fully aware of the £2BFC initiative than respondents living in the Midlands or the South.

During the focus groups there appeared to be regional variations in terms of awareness of the scheme, particularly awareness of the end date of the scheme, with local promotion frequently being cited as key to raising awareness.

Figure 32 Differences by region in response to the question: To what extent, if at all, are you aware of a bus ticket initiative in place since 1 January 2023 that caps the price you pay for a single bus journey to a maximum of £2?



Source: *Wave 2 survey (Base = 4,007; full survey sample); Wave 3 survey (Base = 4,011; full survey sample); and Wave 4 survey (Base = 4,014; full survey sample)*

Note: *This figure only reports regions where the differences in awareness were statistically significant at the 5% level*

While not consistent across all survey waves, the analysis also demonstrated statistically significant variations in awareness by income, socio-economic status, gender, ethnicity and rurality.

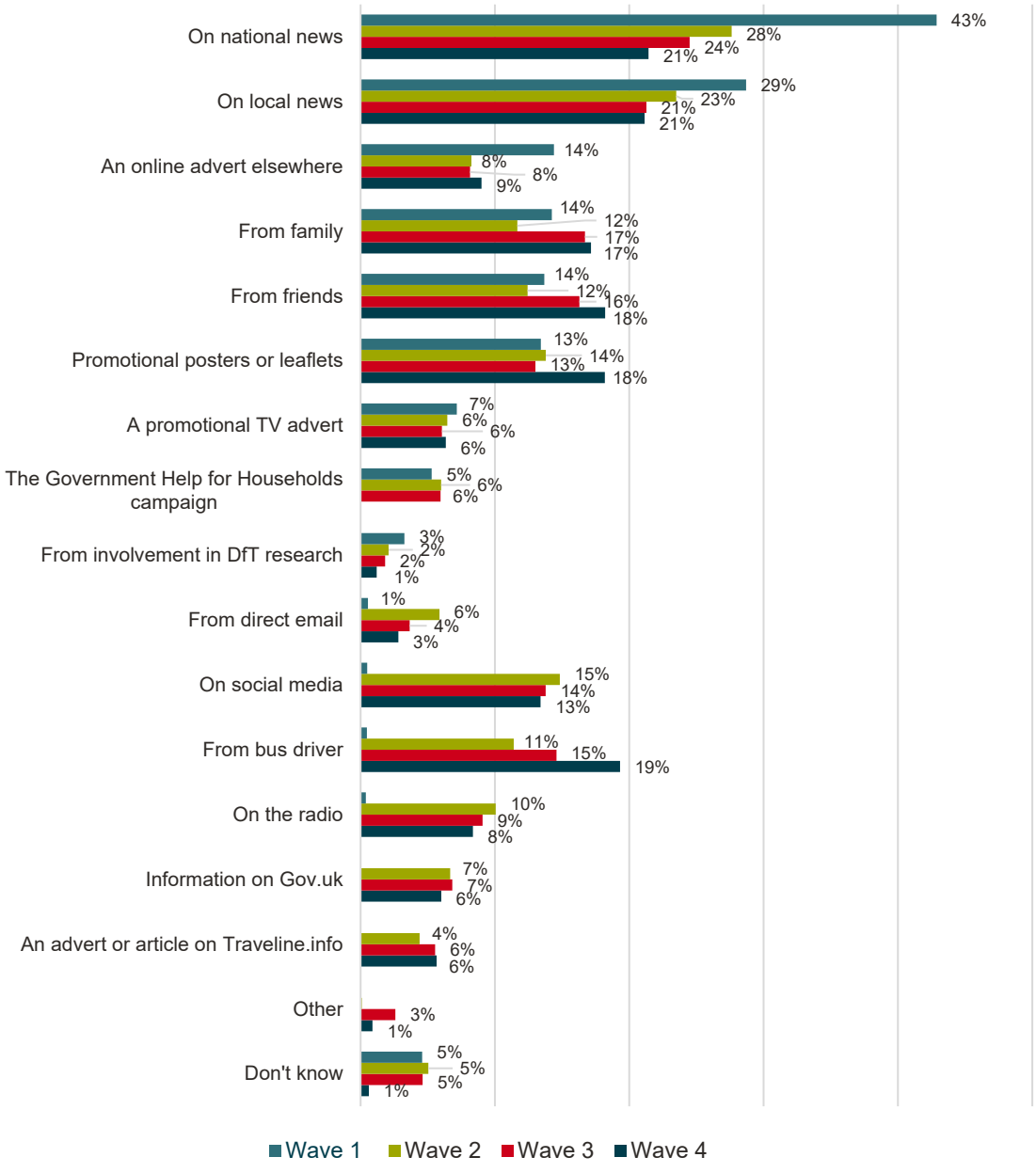
7.1.1 Channels to raise awareness of the £2BFC

Across all four survey waves, the main channels for awareness were national and local news (see Figure 33). However, the proportion of respondents who reported finding out about the fare cap through these channels decreased across the four survey waves. Specifically, 43% of respondents reported finding out about the fare cap on national news in Wave 1, compared to 28% in Wave 2, 24% in Wave 3 and 21% in Wave 4. Similarly, 29% of respondents reported finding out about the fare cap on local news in Wave 1, compared to around a fifth in Waves 2, 3 and 4 (23%, 21% and 21%, respectively).

Word of mouth was also a popular channel for awareness across all four survey waves. Over a tenth of respondents reported finding out about the fare cap from friends in Waves 1, 2 and 3 (14%, 12% and 16%, respectively), with this proportion increasing to just under a fifth in Wave 4 (18%). A similar proportion of respondents reported finding out about the fare cap from their family (Wave 1: 14%; Wave 2: 12%; Wave 3: 17%; and Wave 4: 17%).

In Wave 4, finding out about the fare cap from bus drivers was another popular channel for awareness, with around a fifth (19%) of respondents reporting this. This was an increase from the previous waves.

Figure 33 How did you find out about the £2 Bus Fare Cap initiative for a single bus journey?



Source: *Wave 1 survey (Base = 2,234; respondents who were fully or somewhat aware of the fare cap initiative); Wave 2 survey (Base = 2,759; respondents who were fully or somewhat aware of the fare cap initiative); Wave 3 survey (Base = 2,844; respondents who were fully or somewhat aware of the fare cap initiative); and Wave 4 survey (Base = 2,837; respondents who were fully or somewhat aware of the fare cap initiative)*

7.2 Other factors that may have impacted bus travel behaviour alongside the £2BFC

As noted in Section 5, across Waves 2, 3 and 4 of the survey, around 40% of respondents reported that the £2BFC was the main reason for their increased bus use since the launch of the initiative, but that there were other reasons for this change too (Wave 2: 45%; Wave 3: 37%; Wave 4: 41%). Further, around a quarter of respondents noted that the fare cap was one of the reasons for their additional bus journeys but not the main one (Wave 2: 17%; Wave 3: 25%; Wave 4: 24%).

These findings suggest that there are other factors that may have impacted passenger numbers throughout the length of the £2BFC scheme.

Focus group participants felt that their satisfaction with bus travel had increased since the introduction of the £2BFC scheme, which could have had some influence on their use of the bus. Reasons for this included:

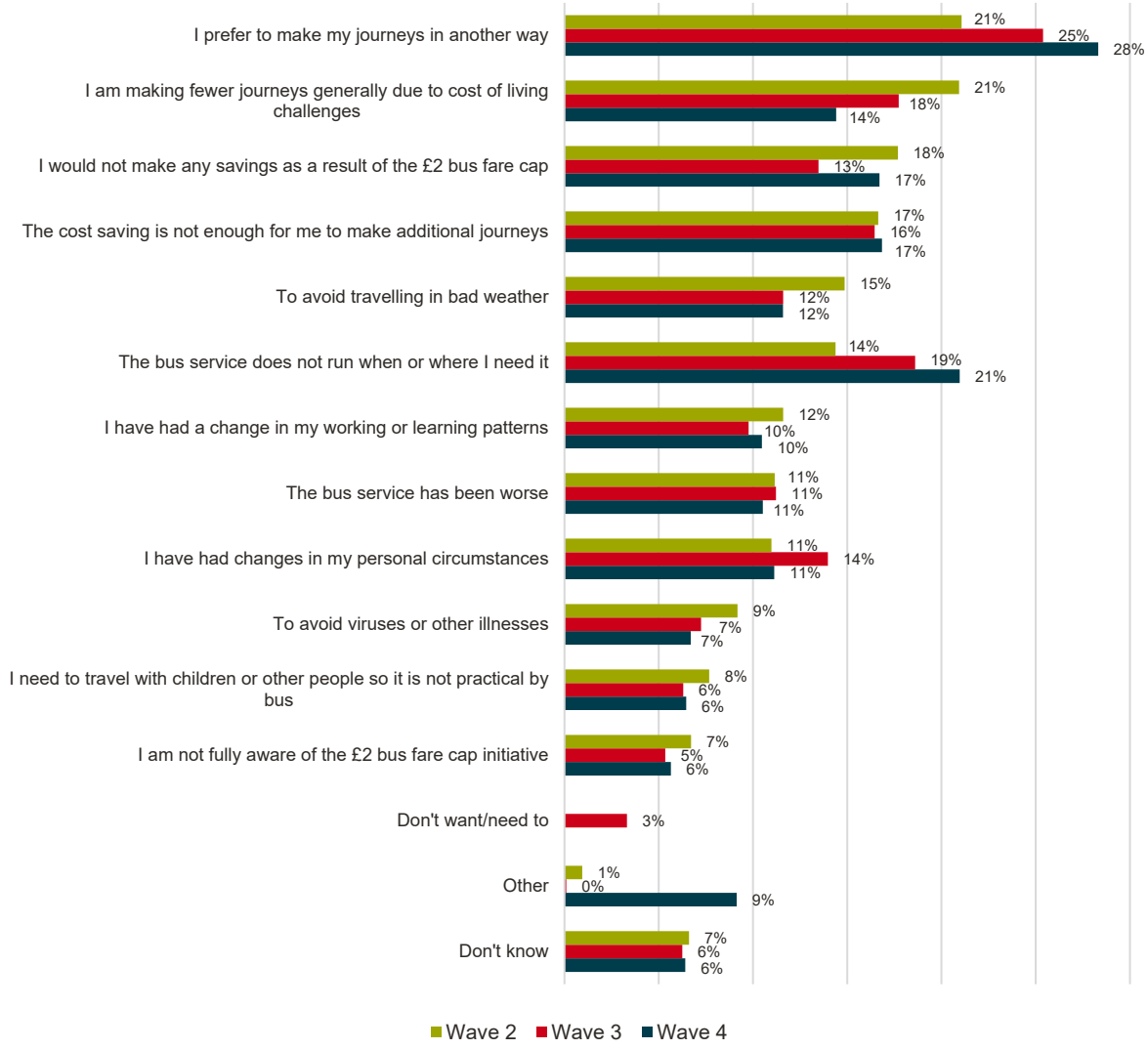
- Now seeing the bus as a viable option, which some had never considered before;
- Confidence in knowing the cost of the ticket, no matter which route or operator, reduces the decision-making burden when deciding to take the bus;
- More attention being paid to maintenance and cleaning;
- Reduced levels of antisocial behaviour; and
- Improved frequency and reliability of routes.

> "It's made me actually use the buses, so I've actually massively increased my level of satisfaction because beforehand I just didn't see it as a valid option." (Male, 18–34, North West)
>
> "The interior, the cleanliness, all that sort of side of it and the connectivity side of like frequency and you know in terms of the timetables, I feel like there are a lot more." (Female, 35–59, Yorkshire and the Humber)

Insights from survey respondents who did not report increasing their bus use since the launch of the £2BFC scheme also suggest that a number of factors had influenced this decision (see Figure 34). Specifically, respondents commonly noted:

- They preferred to make journeys in another way (Wave 2: 21%; Wave 3: 25%; Wave 4: 28%);
- Bus services did not run when or where they needed them (Wave 2: 14%; Wave 3: 19%; Wave 4: 21%); and
- Cost of living challenges, although it is interesting to note that this concern reduced over time (Wave 2: 21%; Wave 3: 18%; Wave 4: 14%).

Figure 34 Why have you not undertaken more journeys by bus since the £2 Bus Fare Cap for a single bus journey was introduced on 1 January 2023?



Source: *Wave 2 survey (Base = 728; those who have undertaken fewer or about the same bus journeys since the launch of the £2 Bus Fare Cap); Wave 3 survey (Base = 900; those who have undertaken fewer or about the same bus journeys since the launch of the £2 Bus Fare Cap); and Wave 4 survey (Base = 086; those who have undertaken fewer or about the same bus journeys since the launch of the £2 Bus Fare Cap)*

Focus group participants mentioned a number of barriers to bus use when considering their decision on whether or not to travel by bus. They felt that some of these barriers had not been entirely mitigated by the introduction of the £2BFC, and therefore they could be having some influence on observed patronage trends. Specifically, participants felt that the reliability and frequency of routes had not significantly improved and still served as a significant barrier to bus usage.

> "I think reliability is an issue no matter what. The other day I was waiting for a bus, the wait got too long and then I gave in, ordered an Uber […] the convenience did

> win [over the lower cost of the bus] because I've been there for about 35 minutes […] I had to get home and do other stuff." (Male, 18–34, Yorkshire and the Humber)

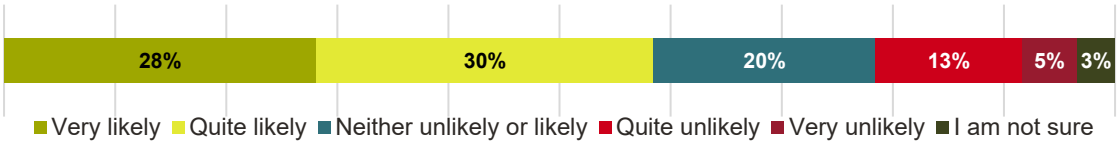
7.3 Perceived passenger impact of ending the £2BFC

One key concern from the operators interviewed was that passengers might reduce their bus use once the £2BFC ends due to increases in fare levels.

In Wave 4 of the survey, respondents were therefore asked how their bus usage might change once the £2BFC scheme ended.

Figure 35 shows that over half (58%) of the respondents reported that they were likely to continue to travel by bus in the future, once the £2BFC scheme ended, even if they had to pay more. In turn, around 18% of respondents reported that they were unlikely to continue to travel by bus once the scheme ended, while a similar proportion (20%) were neither likely nor unlikely to continue to travel by bus once the scheme ended.

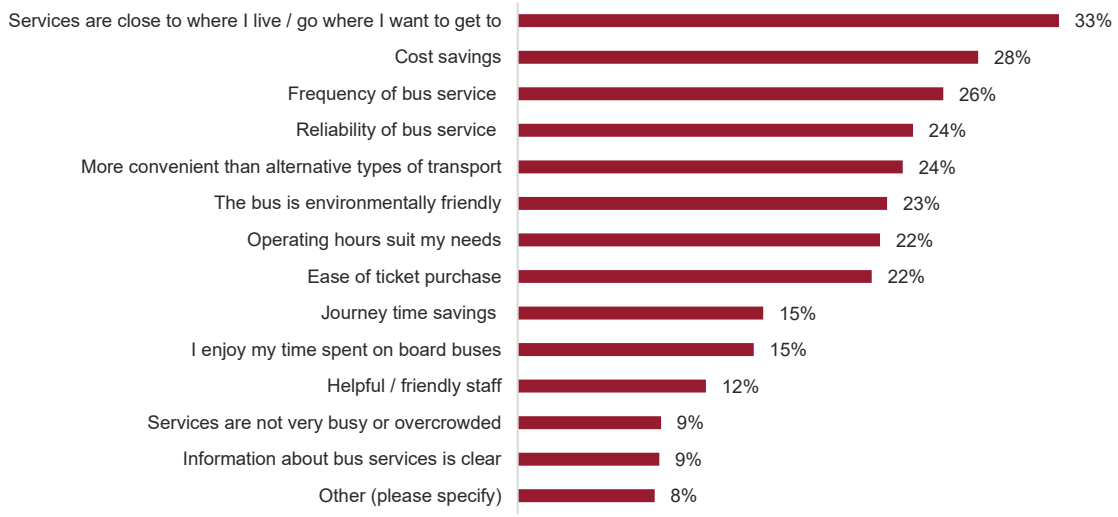
Figure 35 How likely or unlikely are you to continue to travel by bus in the future, once the £2 Bus Fare Cap scheme ends, even if you would have to pay more?



Source: Wave 4 survey (Base = 1,709; those who have paid a £2 Bus Fare Cap for a single bus journey since the launch of the initiative)

Of those who reported that they were likely to continue to make bus journeys in the future when the £2BFC ends, Figure 36 shows that a third (33%) explained that this was due to services being close to where they lived and serving their desired destinations. This was followed by 28% of respondents who mentioned cost savings, and 26% who mentioned the frequency of bus services. Other popular reasons for travelling by bus in the future, reported by around a quarter of respondents, included: the reliability of bus services (24%); the bus being more convenient than alternative transport modes (24%); and the bus being environmentally friendly (23%).

Figure 36 You said you would be likely to travel by bus in the future, once the scheme ends, even if you would have to pay more. What are your reasons for this?

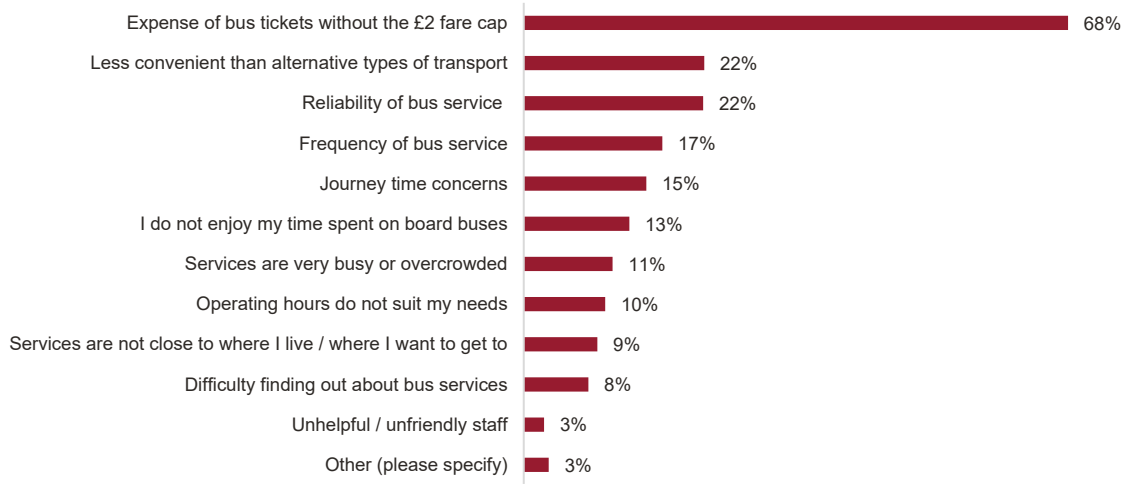


Source: *Wave 4 survey (Base = 999; those who reported being likely to continue to travel by bus in the future, once the £2 Bus Fare Cap scheme ends)*

In turn, Figure 37 shows that 68% of those who reported that they were unlikely to continue to make bus journeys in the future when the scheme ends mentioned that this was due to the cost of bus tickets without the £2BFC, which relates to the concern raised by operators interviewed.

Other reasons for being unlikely to travel by bus when the scheme ends, reported by around a fifth of respondents, included the bus being less convenient than alternative transport types and the reliability of bus services (22% each), while just under a fifth (17%) mentioned the frequency of bus services (note this is on a small sample base).

Figure 37 You said you would be unlikely to travel by bus in the future, once the £2 Bus Fare Cap scheme ends. What are your reasons for this?



Source: Wave 4 survey (Base = 310; those who reported being unlikely to continue to travel by bus in the future, once the £2 Bus Fare Cap scheme ends)

These findings highlight the importance of maintaining high quality bus service levels to encourage ongoing bus use, and of introducing mitigations to reduce the financial impact of a return to normal fare levels.

It should be noted that the £2BFC scheme has not yet ended, and that, as a result, perceived passenger responses may change between now and the end of the scheme. In addition, it should be noted that the findings reported in this section reflect expected bus usage as opposed to actual usage.

Focus groups participants also felt that they might continue to make journeys by bus, or that they might stop these journeys. Those who anticipated continuing to make some of their new bus journeys after the fare cap ends highlighted certain journey types that they would continue, for example:

- Journeys where the bus is the most convenient option, such as where it saves participants from having to think about parking; and
- Journeys where buses are still significantly cheaper than other modes, for example when travelling alone to a city centre bus is far cheaper than travelling by taxi.

Participants who felt that they would be unlikely to continue to travel by bus either stated that they would instead make their journeys by another mode, especially where the price difference was minimal, or they would stop travelling for a specific journey purpose altogether (e.g. longer-distance bus trips and more discretionary bus journeys).

Participants within the focus groups also expressed concerns about the impacts of the £2BFC scheme ending. Perceived impacts included:

- Concerns that unprofitable bus services would be reduced or stopped;
- Anticipated negative impacts on those in the North, fuelling a perception that the North was being left behind following the cancellation of the northern section of HS2; and
- Negative impacts on disabled people and their ability to travel independently or at all, due to being unable to afford to travel and unable to access alternative modes.

> "It would feel like that with losing the high-speed rail and losing the £2.00 cap. It would feel like we're not getting anything in the north again. It would just feel like the North being left behind again." (Male, 18–34, North West)
>
> "Honestly, a lot of the people that I know including myself, my family, my dad is disabled. He's not a wheelchair user, but he is disabled, and he can't drive due to his disabilities. He can't walk due to his disabilities either. He can probably walk to the bus stop that's less than 5 minutes away and that's about it. So after that, what is left for the huge groups of people in this country who need that support?" (Male, 18–34, North West)

7.4 Impacts on operators and service provision

Operators interviewed described growing patronage as a result of the £2BFC but noted that this benefit had not been achieved without experiencing some challenges. As noted previously, the key challenge for operators, particularly smaller operators, was the extensive data required to process reimbursements from DfT, especially in the run up to extensions of the scheme. Other negative impacts of the £2BFC on bus operators were:

- Operating overcrowded services;
- Increased service demand creating resource pressure for drivers, mechanics and the bus fleet;
- Changes to ticket types purchased and payment methods used, including less useful ticket sales data to make commercial decisions; and
- Not being in control of setting fare structures across routes, which helps with commercial decision making in the long term.

A number of these impacts were unintended outcomes of the scheme. These are described in detail below.

7.5 Unintended effects of the £2BFC

A number of wider unintended passenger effects of the £2BFC were reported by operators, and these could have some influence on behavioural change in response to the scheme. However, it should be noted that these observations should be considered as anecdotal and not necessarily reflective of the scheme as a whole. They include:

- There is a delay in boarding times due to more on-bus transactions. To combat this, some operators have included the £2 tickets on their app.
- There are changes in travel trends, with customers more frequently travelling the full distance of routes, rather than just short hops.
- Concessionary pass holders are travelling more frequently during off-peak times, which operators believe is their response to avoid the increased crowding on bus routes which were previously quiet.

8 Value for money of the £2 Bus Fare Cap over the first 10 months

Key messages

The value for money of the £2BFC is challenging to assess, though can reasonably be considered 'low' VfM[31] (i.e. BCR above 1) after accounting for the additional benefits that are not possible to quantify.

As this evaluation focuses on the first 10 months of the £2BFC, the assessment of VfM should be considered indicative at this stage. The preliminary benefit–cost ratio (BCR) is estimated to be 0.71–0.9, although this does not include all the benefits of the scheme. Fieldwork suggests these include the savings to people who switch modes to buses and the wellbeing benefits of reducing the cost of bus travel for all passengers who would have used the bus even without the fare cap. There are also distributional impacts. Preliminary analysis of the potential scale of the wellbeing effects alone suggests it is reasonable to believe the BCR is at least above 1 (categorised as low VfM).

8.1 Approach to the VfM assessment

In keeping with HMT Green Book guidance,[32] the VfM evaluation of the £2BFC is considered in three parts:

- Part 1: Overall, to what extent did the £2BFC meet its strategic objectives to increase patronage and reduce the cost of living?
- Part 2: To what extent did the actual spend by government on operator reimbursement differ from planned?
- Part 3: To what extent did the benefits of the £2BFC exceed the costs over the first ten months? In addition, what are the distributional effects of the £2BFC?

The evaluation of benefits and costs was carried out using the available evidence. The assessment was undertaken in line with standard transport analysis (DfT TAG)[33] guidance.

[31] This categorisation is based on the DfT Guidance: DfT (2016) Value for Money Supplementary Guidance on Categories, available at https://assets.publishing.service.gov.uk/media/5f62378bd3bf7f7232e7e6d9/value-for-money-supplementary-guidance-on-categories.pdf

[32] HMT (2023). The Green Book.

[33] DfT (2024). Transport analysis guidance. Accessed at: https://www.gov.uk/guidance/transport-analysis-guidance-tag

As this evaluation focuses on the first 10 months of the £2BFC scheme, the assessment of VfM is partial and relies on a number of assumptions. It should therefore be considered as indicative at this stage, although it is intended to provide evidence-based insights.

The remainder of this section sets out findings of the VfM assessment along with a summary of the approach and key assumptions used where relevant. Full details on the approaches used to assess whether the benefits of the £2BFC exceeded its costs can be found in Annex E

8.2 Assessing VfM part 1: To what extent did the £2BFC achieve its strategic objectives?

The HMT Green Book (HMT, 2022) states that in order for an intervention to be considered VfM it needs to meet its strategic objectives. The £2BFC has two strategic objectives: to reduce the cost of living, particularly for low-income households, and to increase bus patronage. It is also expected to contribute to the wider goals of the NBS to enable modal shift.

As set out in the impact evaluation, the evidence suggests that, over the first 10 months, the £2BFC achieved both of these strategic objectives. Overall the £2BFC appears to have played a role in patronage recovery following the pandemic. The analysis suggests that the £2BFC led to an approximate 5% increase in patronage outside of London from January to October 2023 compared to the same period in the previous year, out of a total observed 13% increase over that period. This is supported by the survey carried out for this evaluation, which found that around 40% of respondents reported taking more journeys by bus since the introduction of the £2 fare cap, around 90% of whom credited this increase in part or fully to the £2BFC.

Around 40% of the survey respondents also reported saving money as a result of the £2 £2BFC (this was consistent across the survey waves). Around 30% of survey respondents said that the scheme had had a positive impact on the amount of income they had for other expenses, and a similar proportion reported that it had had a positive impact on their disposable income. Participants in the focus groups carried out for this evaluation revealed that they were able to spend this saved money on making additional discretionary journeys for leisure, being able to purchase fresh, healthy food and on social occasions.

8.3 Assessing VfM part 2: Comparison of actual vs. planned operator reimbursement

Evidence from DfT suggests that the forecast budget for operator reimbursements for Phases 1 to 3 of the £2BFC was £245 million. This was estimated on the basis of assumptions about how many operators would participate in this voluntary scheme, the potential scale of patronage over the period and the scale of fare reduction that the £2BFC would imply. As

forecasts were in nominal terms, assumptions on inflation also had to be made. Actual spend by DfT on reimbursements over the 10-month period was 14% lower at £210 million.

DfT representatives explained that, at the time of budgeting for this intervention, some contingency was built into the calculations to ensure that appropriate funding was available for all legitimate reimbursements. They also highlighted that several changes had been made to the scheme which impacted operator reimbursement, making it challenging to compare each phase of the £2BFC.

It should be noted that there was very little change in operator participation over the course of the £2BFC (see section 2.3), and DfT estimates that operator participation is around 90% of the market in terms of patronage. This means that any difference between actual and planned spend is unlikely to be due to lack of operator participation. The difference is therefore likely to be due to other assumptions relating to inflation, patronage and the scale of fare reduction.

8.4 Assessing VfM part 3: The extent to which benefits exceed costs

8.4.1 Approach to the social cost–benefit analysis

A social cost–benefit analysis (CBA) based on the DfT TAG and DfT's VfM framework[34] was carried out to estimate the indicative benefits of the £2BFC over 10 months of operation and compared these to the cost of delivering the scheme. To be consistent with standard transport appraisals, the benefits assessment assumes that the metric of analysis is changes in generalised costs.[35]

The impacts of a scheme can be considered quantitatively or qualitatively. Where it is feasible and proportionate to do so, the impacts of a scheme can be expressed in monetary terms (i.e. monetised impacts). These monetised impacts can be compared against the monetised costs of the scheme to calculate a benefit–cost ratio (BCR), defined as the present value of benefits divided by the present value of costs (costs borne by public bodies). Monetised impacts were included in the preliminary BCR if they were considered to be well established in the DfT's VfM framework, otherwise they were included in the adjusted BCR.

Not all impacts are monetisable, either due to lack of data or because it is not proportionate to monetise them. The Green Book supplementary guidance for VfM notes that the VfM assessment should understand whether a policy meets its strategic objectives (as addressed above) and maximises benefits relative to costs, taking into consideration both costs and impacts that can and cannot be quantified. Non-monetised impacts should be given appropriate weight in the overall VfM assessment, as consideration of both monetised and

[34] DfT (2021). DfT value for money framework. Accessed at: https://www.gov.uk/government/publications/dft-value-for-money-framework

[35] This refers to money and non-money costs of travel.

non-monetised impacts are necessary to form a comprehensive assessment of VfM. In this evaluation, non-monetised impacts are considered using a 'what-if' analysis.

Where impacts are monetised, this has drawn primarily on DfT TAG guidance along with outputs of the survey data provided by operators and the results of the impact evaluation. Further details on the CBA methodology can be found in Annex E .

8.4.2 Costs

The DfT's VfM framework (DfT, 2021) states that in the context of a CBA, 'costs' refer to the costs and revenues which directly affect the public budget available for transport. In this case, the costs used to inform this analysis and calculate the BCR are the actual scheme costs to DfT. Actual operator reimbursement for £2BFC (Phases 1–3) was £210 million (2023 prices).

8.4.3 Benefits

Summary of benefits considered in the CBA

Table 7 summaries the benefits considered in this VfM evaluation, along with whether they are considered to be established, evolving, indicative impacts or non-monetised impacts[36].

Table 7 Benefits of the £2BFC used in the VfM assessment

Impact	Type
User benefits: Baseline, modal shift and generated trips The change in the net value of trips due to the £2BFC. This encompasses benefits for passengers on baseline, modal shift and generated trips	Established monetised impact
Change in greenhouse gas (GHG) emissions: Modal shift Where travellers have chosen to make their trips using the bus rather than a private form of transport due to the £2BFC, this leads to avoided GHG emissions.	Established monetised impact
Change in other marginal external costs: Modal shift Where travellers have chosen to make their trips using the bus rather than a private form of transport due to the £2BFC, this leads to avoided vehicle kms and associated external costs of	Established monetised impact

[36] The DfT VfM framework classifies impacts into established monetised, evolving monetised, indicative monetised, and non-monetised impacts. Depending on the classification of an impact, it is either included in the calculation of the initial VfM metric or the adjusted VfM metric. Non-monetised impacts do not feed into the initial or adjusted VfM metrics but are considered together with monetised impacts in the overall assessment for money. See page 22: https://assets.publishing.service.gov.uk/media/5f6237408fa8f5106d15640c/value-for-money-framework.pdf

congestion, infrastructure (damage and repair), accidents, local air quality, noise and indirect taxation. Impacts on GHGs are excluded to avoid double counting.	
Affordability: Baseline trips The wellbeing impacts associated with how travellers choose to use the money they have saved as a result of the £2BFC on baseline trips	Non-monetised

User benefits

User benefits refer to direct benefits of the scheme to transport users. Users of transport perceive both money costs and time costs associated with the trips they make (together referred to as generalised costs). When a person chooses to make a trip, they do so because they perceive these costs to be outweighed by the potential opportunities and benefits at their destination.

In the case of the £2BFC, there are several types of user benefits that could arise. These differ depending on the type of trip that an individual is taking. As discussed in section 2.1, trips can be split into three categories (Figure 38):

- Baseline trips: bus trips that would have happened by bus even in the absence of the £2BFC;
- Modal substitution trips: trips that would have been taken using a different mode of transport in the absence of the £2BFC; and
- Generated trips: trips that would not have happened at all in the absence of the £2BFC.

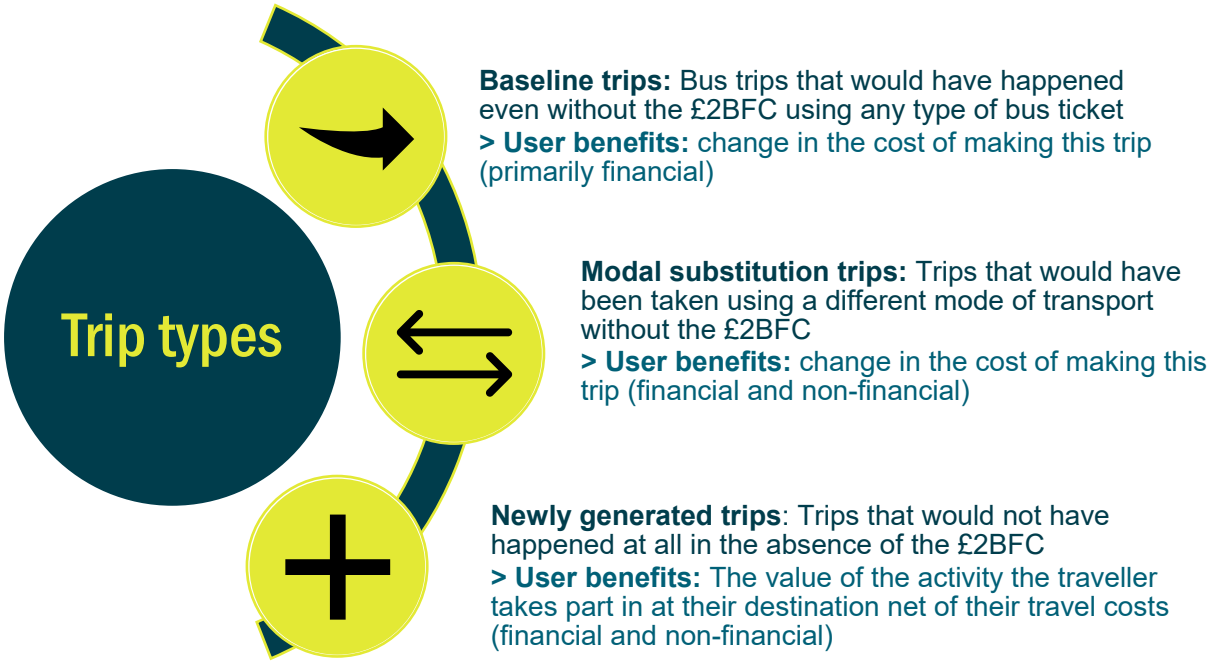
For baseline trips, the user benefit is the reduction in the generalised costs of making that trip. For example, users who used to make their trips using a single fare that cost over £2 would benefit from the difference between the pre-intervention price and £2. There might also be savings for people who travelled on different bus ticket types prior to the introduction of the £2BFC (see Section 5.6 for a discussion on the impact of the scheme on ticket substitution for existing bus trips).

A similar logic applies to modal substitution trips. As these trips would have occurred using a different mode of transport without the £2BFC, there is no change in the benefit that travellers receive from reaching their destination. Instead, the benefit comes from a change in the cost of making that journey, both in financial and non-financial terms. From a financial perspective, taking the bus may be cheaper than alternative modes such as taxi or driving or may be more expensive than walking or cycling. Non-financial costs include potential changes in travel time as well as other factors such as comfort or convenience.

For generated trips, user benefits reflect the value to the traveller of making that trip as it would not have happened in the absence of the £2BFC. For example, an individual may choose to

go sightseeing using the £2 bus fare. The financial and non-financial costs of making that trip are netted off the value they place on that sightseeing activity.

Figure 38 User benefits by trip type



Source: Frontier Economics

Estimation of baseline, modal substitution and generated trips

The number of baseline, modal substitution and generated trips was estimated using the results of the impact evaluation (see section 5.1), data from operators and results of the survey. Data from operators was used to estimate the total number of trips that occurred between January and October 2023. Using the results of the impact evaluation, this was then separated into baseline and incremental trips, where incremental trips are the sum of modal substitution and generated trips.

The analysis suggests that the £2BFC led to an approximate 5% increase in patronage outside of London from January to October 2023 compared to the same period in the previous year. This was used to estimate incremental trips, which were further separated into modal shift and generated trips using results of the survey. The relevant survey question asked respondents whether their additional bus trips were trips they would not have made without the £2BFC or whether they were trips they would have made using a different mode of transport.

Further details on the estimation of baseline, modal shift and generated trips can be found in Annex E .

Estimating user benefits

The TAG guidance sets out two approaches for estimating user benefits: (1) Rule of a Half and (2) disaggregated approach. The standard approach in TAG to estimate user benefits due to a reduction in travel cost is the Rule of a Half. Conventional economic theory assumes that when the cost of travel changes, the net value of incremental trips (modal shift and generated trips) is half of the change in costs. This is added to the estimated savings for baseline trips to estimate total user benefits.

For bus interventions, TAG sets out an alternative approach of disaggregating the benefits relating to non-work trips that would not take place without the intervention. This approach estimates the impact of generated trips separately using the 'social value of bus travel'. This social impact value reflects the fact that buses increase the accessibility to public services and employment opportunities, which in turn leads to social benefits such as reduced risk of social exclusion. Using this disaggregated approach, the social value of bus travel (£13.09, 2023 values and prices) is multiplied by the number of generated trips. The cost of making these trips is then netted off to reach an alternative estimate of user benefits for generated trips. For this evaluation, the monetary cost of making this trip is assumed to be £4 (£2 each way, assuming people travel to their destination and home again). The non-monetary costs, such as the value of time, are not quantified as no data is available on how long these trips take.[37] There is also some evidence from the focus groups undertaken for this evaluation that a small proportion of people may view the bus trip itself as a leisure activity rather than a cost, as in the following example.

> "Last year I took the coastliner, which is sort of one of the most beautiful bus trips, like a 5-hour trip from Leeds right away up to Whitby." (Male, 35–59, North West)

As the social value of bus travel only applies to generated trips, the disaggregated approach requires a separate assessment of user benefits for baseline and modal shift trips. The user benefits of baseline trips are estimated in the same way as the Rule of a Half by multiplying the number of baseline trips with the average change in cost per trip. The user benefits of modal shift trips are not monetised under the disaggregated approach as no data is available on how much these trips would have cost using a different mode of transport, e.g. parking costs for people switching away from car travel. However, it is reasonable to assume that people who choose to switch modes would only do so if they perceived the benefits of doing so to exceed the costs and therefore there should be a positive user benefit associated with these trips.

The exclusion of non-monetary costs for generated trips means that the disaggregated approach could overstate user benefits. This is mitigated to some extent by the fact that modal shift trips are not monetised.

[37] As any changes in time were not possible to account for, the analysis only takes account of changes in fares.

Both the Rule of a Half and the disaggregated approach were used to estimate the range of potential user benefits. The relative benefits and limitations of each approach are summarised below.

Table 8 Differences between the Rule of a Half and the disaggregated approach to estimating user benefits

Estimation approach	User benefits monetised by trip type			Strengths and limitations
	Baseline	Modal shift	Generated	
Rule of a Half	✓	✓	✓	**Strengths**. Monetises user benefits for all three trip types. **Limitations**. This is a generalised approach used for assessing the change in user benefits for all transport modes and interventions and does not reflect any specific characteristics associated with bus trips. Not possible to account for changes in time.
Disaggregated approach	✓	×	✓	**Strengths.** Estimation of user benefits for generated trips reflects the specific characteristics of bus as a mode. **Limitations.** Does not monetise modal shift trips; value of time not accounted for in generated trips. These impacts move in opposite directions and give greater uncertainty to the overall estimate.

Change in GHG emissions: Modal shift

Almost half of all survey respondents who said they had made additional bus journeys self-reported that, in the absence of the £2BFC, they would have made these using an alternative form of transport in the survey (see section 5.5). Respondents most commonly reported replacing journeys that they would have made by car or van as a driver with bus trips. A smaller proportion reported replacing journeys that they would have made using a taxi. Switching from these modes of transport to the bus is expected to result in a reduction in GHG and the value of these avoided emissions is estimated quantitatively using TAG guidance.

Change in other marginal external costs: Modal shift

The use of road vehicles incurs both private costs borne by individual travellers (for example fuel costs and personal travel time) and external costs borne by others. These include congestion, local and global air pollution, noise, infrastructure (wear and tear) and accident costs. A reduction in traffic in moderate to congested areas can lead to a reduction in these marginal external costs (MECs).

In the case of the £2BFC, a proportion of incremental bus trips will be due to mode shift away from private vehicles. Where this is in congested areas, this could lead to a reduction in MECs. The MEC approach is appropriate where decongestion benefits are expected to be small compared to other impacts.[38] This is the case for the £2BFC as mode shift trips are expected to account for a relatively small proportion of overall patronage over the evaluation period. The change in MECs was monetised using the approach in TAG guidance. See Annex E for further details.

Affordability: Baseline trips

One of the key strategic objectives for the £2BFC was to support the cost of living by reducing the cost of travel, particularly for low-income households. While the user benefits associated with baseline journeys quantifies the direct financial saving for baseline trips, these savings may lead to knock-on benefits. Participants of the focus groups noted that they were able to spend this saved money on social occasions, making additional discretionary journeys for leisure, and being able to purchase fresh, healthy food. Each of these examples will have an associated wellbeing impact that is not quantified as part of the user benefits.

These wellbeing impacts were not monetised within the preliminary BCR. However, what-if analysis was carried out to understand how many people would need to benefit in order to change the estimated BCR. See Annex E for further details.

[38] DfT (2023). Tag Unit A5.4 Marginal external costs.

8.4.4 Preliminary BCR

Table 9 sets out the estimated monetised impacts of the £2BFC over the 10 months between January and October 2023. All monetised impacts are considered to be established monetised impacts in DfT's TAG guidance and are therefore used to estimate the preliminary BCR.[39]

A plausible range has been estimated for monetised benefits. These have been estimated using a range of sensitivities:

- **Approach to estimating user benefits.** These can be estimated using the Rule of a Half or the disaggregated approach.
- **Share of modal shift and trip generation trips.** Incremental trips are separated into modal shift and trip generation. This can be done using the results from the survey, standard TAG assumptions or standardised TAG sensitivities.[40]
- **Share of originating modes for modal shift.** The share of modal shifts that have taxi or car (driver) as the originating mode is estimated using either results from the survey or standard TAG assumptions from the TAG Databook.

Table 9 sets out the range of estimated monetised impacts of the £2BFC. Based on the data available for this evaluation, monetised impacts are estimated to be in the range of £150m to £189m (2023 prices).

Table 9 Estimated monetised impacts of £2BFC over the period January to October 2023

Impact	Indicative range (2023 prices, £m)	Type
User benefits for baseline trips, modal shift and generated trips. This therefore includes the value of new trips.[41]	£142–£182	Established monetised impacts
GHG emissions: Modal shift	£2.8–£3.5	Established monetised impacts
Net reduction in marginal external costs: Modal shift	£4.9–£6.1	Established monetised impacts

39 ibid

40 DfT (2022) TAG Unit A1.3 User and Provider Impacts.

41 The value of new trips is included in both the Rule of a Half approach and the disaggregated approach, but the specific method of estimating this value is different under the two approaches.

Impact	Indicative range (2023 prices, £m)	Type
Total estimated monetised impacts over the 10-month period	**£150–£189**	

Source: Frontier Economics

The majority of this estimated monetised benefit (95%) is accounted for by user benefits relating to cost savings to bus users. The scale of benefits of GHG emission reductions and avoided MECs which arise from modal shift away from private transport to bus is relatively low. This is because the available evidence suggests that the majority of bus passengers throughout the period of the £2BFC appear to be existing bus users (some continue to travel as before and some travel more) but most would already have been using the bus. The degree of mode shift is challenging to estimate as the lack of data prevents a rigorous assessment. However, the survey data provides evidence that this has occurred to some degree.

This analysis suggests a preliminary BCR of 0.71–0.90. The lower end of this range uses standard TAG assumptions to estimate the number of generated trips and the number of modal shift trips for which the traveller would have driven a car or taken a taxi without the £2BFC and monetises user impacts using the Rule of a Half. The top end of this range uses results from the survey rather than TAG assumptions and monetises user impacts using the disaggregated approach.

However, it is important to recognise that the preliminary BCR reflects the estimated monetised impacts only. It does not include any benefits that it is not possible to monetise at this stage. These include the non-monetised savings to people who switch modes to buses and the wellbeing benefits of reducing the cost of bus travel for all of the passengers who would have used the bus even without the £2BFC. Nor does it take account of the distributional impact of the scheme, which is discussed in section 8.4.6. It would be anticipated that people on lower incomes would gain greater value from the lower costs of their bus travel than those who have higher levels of income. Both these factors would be expected to increase the overall VfM of the scheme.

8.4.5 What-if analysis: Wellbeing impacts

One of the key strategic objectives for the £2BFC was to support the cost of living by reducing the cost of travel, particularly for low-income households.

While the user benefits associated with baseline journeys quantify the direct fare saving for baseline trips (i.e. the saving from only paying £2 for their ticket instead of what it previously cost), these savings may lead to knock-on benefits. Research carried out by the government found that people struggling to afford bills had worse wellbeing, including lower life satisfaction,

lower happiness and higher anxiety.[42] The same analysis found that adults who were borrowing more money or using more credit were twice as likely to report low happiness. If the savings resulting from the £2BFC can help to alleviate other financial pressures, this could have an associated wellbeing benefit that should be taken into account when evaluating overall VfM.

Around 30% of survey respondents said that the scheme had had a positive impact on the amount of income they had for other expenses. A similar proportion of survey respondents reported that the scheme had had a positive impact on their disposable income. Participants of the focus groups noted that they were able to spend this saved money on being able to purchase fresh, healthy food, social occasions and making additional and discretionary journeys for leisure.

> "I'm able to afford much better food than I was before because that chunk of money that I was having to spend on taxis and stuff is now much more freed up […] I've got fresh fruit and veg in my fridge which never happened before [the £2 Bus Fare Cap was introduced]." (Male, 18–34, North West)

Although it is not feasible to robustly estimate the wellbeing impact of the £2BFC in quantitative terms, what-if analysis was carried out to understand the scale of wellbeing impacts that would be required to increase the estimated BCR to 1 and 1.5 and assess how plausible this is using the WELLBY approach. A WELLBY is defined as a one-point change in life satisfaction for one year.[43] It is valued at £13,719 (2023 values, 2023 prices).

For the purposes of this analysis, data from the ONS Opinions and Lifestyle (OPN) survey[44] was used to estimate the impact of alleviating various types of financial strain. The OPN measures overall life satisfaction on a scale of 1–10 and compares average life satisfaction for different population groups. This includes average life satisfaction across a range of financial situations, including ability to afford an unexpected expense of £850, ability to save in the next 12 months, being behind on energy bill payments, and how affordable people feel their energy bills are. The difference between these average life satisfaction scores can be monetised using WELLBY values. For example, the value of an intervention that enables an individual to save in the next 12 months when they previously would not have been able to has a value of £16,463. These values are set out in Table 10.

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42 ONS (2023). How are financial pressures affecting people in Great Britain? Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/howarefinancialpressuresaffectingpeopleingreatbritain/2023-02-22#:~:text=Adults%20struggling%20with%20bills%20were,20%25)%20reported%20low%20happiness

43 HM Treasury (2021). Wellbeing guidance for appraisal: Supplementary Green Book Guidance. Accessed at: https://assets.publishing.service.gov.uk/media/60fa9169d3bf7f0448719daf/Wellbeing_guidance_for_appraisal_-_supplementary_Green_Book_guidance.pdf

44 ONS Opinions and Lifestyle survey; Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/datasets/financialpressuresandwellbeingingreatbritaindata

Table 10 Overall life satisfaction for people in different financial situations (measured out of 10)

Financial situation	Yes	No	Difference	Value of the change using WELLBYs (2023 values, 2023 prices)
Ability to afford an unexpected expense of £850	7.30	6.00	1.3	£17,835
Ability to save in the next 12 months	7.50	6.30	1.2	£16,463
Being behind on energy bill payments	5.60	7.00	1.4	£19,207

Source: *ONS Opinions and Lifestyle survey; Accessed at: https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/datasets/financialpressuresandwellbeingingreatbritaindata*

These WELLBY values can be used to estimate the number of people who would need to be impacted by the £2BFC (i.e. where the fare savings from the £2BFC led to annual savings that enabled them to shift their financial situation from a 'no' relating to 'ability to afford an unexpected expense of £850' to a 'yes') in order to reach a BCR of 1 or 1.5.[45] This is shown in Table 11.

Table 11 What-if analysis: Affordability and wellbeing

Financial situation	No. of people required to reach a BCR of 1	No. of people required to reach a BCR of 1.5
Ability to afford an unexpected expense of £850; No to Yes	179,981–532,230	1,081,142–1,433,392
Ability to save in the next 12 months; No to Yes	194,979–576,583	1,171,238–1,552,841
Being behind on energy bill payments; Yes to No	167,125–494,214	1,003,918–1,331,007

[45] A WELLBY is defined as a one-point change in life satisfaction for one year. The change in life satisfaction scores have therefore been scaled down to reflect the fact that this evaluation looks at the impacts of the scheme over 10 months rather than a year.

Financial situation	No. of people required to reach a BCR of 1	No. of people required to reach a BCR of 1.5
Energy bills affordability; Very to somewhat difficult	179,981–532,230	1,081,142–1,433,392
Energy bills affordability; Somewhat difficult to somewhat easy	259,972–768,777	1,561,650–2,070,455

Source: Frontier Economics analysis

To understand the plausibility of this scale of financial impact, the number of people required to switch the VfM to 1 and to 1.5 is expressed as a proportion of people who use the bus at least once or twice a week[46] in Table 12. This is then compared to the proportion of survey responses who said that the £2BFC had had a positive or very positive impact on the amount of money they had for other expenses (26%–29%) and the amount of money they had for other spending or saving (26%–30%).

Based on this comparison, the wellbeing impacts arising from the reduction in the cost of bus travel due to the £2BFC could potentially be sufficient to increase the BCR to at least 1.

Table 12 What-if analysis: Affordability and wellbeing likelihood assessment

Financial situation	No. of people required to reach a BCR of 1 as a % of estimated regular bus users	No. of people required to reach a BCR of 1.5 as a % of estimated regular bus users
Ability to afford an unexpected expense of £850; No to Yes	1.9%–5.5%	11.2%–14.9%
Ability to save in the next 12 months; No to Yes	2.0%–6.0%	12.1%–16.1%
Being behind on energy bill payments; Yes to No	1.7%–5.1%	10.4%–13.8%
Energy bills affordability; Very to somewhat difficult	1.9%–5.5%	11.2%–14.9%
Energy bills affordability; Somewhat difficult to somewhat easy	2.7%–8.0%	16.2%–21.5%

Source: Frontier Economics analysis
Note: Regular bus users refers to people who use the bus at least once or twice a week

[46] The National Travel Survey found that in 2022, 20% of people surveyed reported travelling by local bus at least once or twice a week. Applying this to the population of England excluding London in 2022 reaches an estimate of around 9.6 million people who use the bus at least once or twice a week.

8.4.6 Distributional impact

One of the key objectives of this scheme was to support low-income households during the cost of living crisis. Therefore, understanding the distributional impact of the scheme is of particular interest to this evaluation.

Socio-demographic characteristics on household income and disability were collected as part of the survey, and results on patronage and cost of living impact were examined by these groups to identify any distributional impacts.

Patronage and access to services

Following the launch of the scheme, survey respondents were asked whether they had taken more, fewer or about the same number of trips since the introduction of the £2BFC. The responses did not consistently differ by household income or disability across waves of the survey. However, analysis consistently demonstrated statistically significant differences in perceived impact of the £2BFC on frequency of bus travel by:

- Employment status – employed respondents were more likely to report a change in bus travel frequency compared to unemployed respondents; and
- Socio-economic status[47] – respondents classified as AB were most likely to report undertaking more journeys by bus and those classified as DE were most likely to report undertaking the same number.[48]

When respondents were asked whether the £2BFC had impacted their ability to participate in different activities, the findings consistently differed by socio-economic status – respondents classified as C1C2 or AB were most likely to perceive the scheme as having a positive impact on all the activities prompted (education and training, employment and leisure activities) compared with those classified as DE. One potential explanation for this is that respondents in higher socio-economic groups have a greater ability to use savings from the £2BFC to participate in additional activities or have disposable income to spend at the destination of their trip.

Cost of living impact

Survey participants were asked about the extent to which the £2BFC had impacted the amount of income they had for other expenses (e.g. bills, rent, other travel costs). While this did not

47 Defined as follows: higher and intermediate managerial, administrative and professional occupations (AB), supervisory, clerical and junior managerial, administrative and professional occupations (C1), skilled manual occupations (C2), and semi-skilled and unskilled manual and lowest grade occupations (DE).

48 Findings from Wave 1 of the survey, undertaken prior to the introduction of the £2BFC, suggest that those classified as AB were least likely to be frequent bus users, with those travelling by bus frequently more likely to be from lower socio-economic groups. This could suggest that the £2BFC has encouraged greater bus travel in a different socio-economic group.

consistently differ by household income or disability across all three post-intervention survey waves, the survey suggests that:

- Findings differed significantly by household income in Waves 2 and 4, with low-income[49] respondents more likely to report that the £2BFC had had an impact, both positive and negative, on income for other expenses.
- Findings differed significantly by disability status in Waves 2 and 4, with respondents who reported having a disability more likely to report a positive impact on income for other expenses.

Survey respondents were also asked about the impact of the £2 fare cap on the amount of disposable income they had for other spending or saving. For this question the findings were statistically different in all three waves of the post-intervention survey for the following characteristics:

- Respondents in low-income households were more likely than those in non-low-income households to report that the £2 fare cap had had a positive or very positive impact on disposable income for other spending or saving. They were also more likely to report that the fare cap had had a negative or very negative impact.[50]
- Respondents who reported that they had a disability were more likely than those who did not report having a disability to report that the £2 fare cap had had a positive or very positive impact on their disposable income.

[49] Self-reported total household income of £35,000 or less before tax and deductions, but including any benefits/allowances

[50] Respondents were not asked to explain the underlying reason for their response to this question.

9 Summary of findings on the first 10 months of the £2 Bus Fare Cap

This report presents an evaluation of the impacts of the scheme over its first ten months (January to October 2023). The main findings are set out below.

9.1 Operator participation

Operator participation, which was voluntary, remained largely unchanged over the three phases of the £2BFC. In Phase 1, 148 bus operators voluntarily joined the scheme, representing around 90% of the total market (by patronage). Since then, nine operators left the scheme due to withdrawal of services, non-eligibility or exit from the market. Three operators withdrew voluntarily from the scheme. At the same time, eight operators joined the scheme. As of £2BFC Phase 3, there were 144 participating bus operators.

9.2 The early impacts of the £2BFC on patronage over the first 10 months of the scheme

The scheme appears to have had a positive impact on bus patronage. Indicative analysis suggests that the £2BFC led to an approximate **5% increase in patronage recovery** outside of London from January to October 2023 compared to the same period in the previous year, out of a total observed 13% increase over that period. The total change in overall patronage reflects a mix of factors including continued post-pandemic recovery and the impact of other local transport-related investments and interventions delivered during this period.

The saving associated with the £2BFC varies significantly across passengers. Prior to the introduction of the scheme, the majority of bus trips were made using concessionary travel passes or period tickets (daily, weekly, monthly, and other tickets that were not singles or returns) with an average price below £2. However, the average cost per trip masks the significant variation in bus ticket prices across the country and therefore the savings associated with the £2BFC vary significantly by individual.

The impacts of the policy are better understood when looking at who the scheme has impacted and how. The survey responses suggest that 16–24 year olds, urban populations and frequent bus users tend to benefit the most from the £2BFC, by undertaking more journeys since the introduction of the scheme and/or perceiving a positive impact of the scheme on various journey purposes and activities.

There is some evidence to suggest that the scheme has had a relatively greater impact on leisure trips compared to those for education and employment. In all survey waves, respondents perceived the £2BFC to have had a greater positive influence on leisure activities than on education and employment activities. Insights from the focus groups support these findings, with those who reported travelling by bus more often tending to note that these

journeys were for leisure purposes, particularly long-distance journeys. It was felt that these longer journeys offered particularly good VfM.

There is evidence of modal shift to the bus, most commonly away from cars. Between 39% and 48% of survey respondents who reported making additional bus journeys following the introduction of the scheme said that they would have made the trip using a different mode of transport without the £2BFC, with cars being the most frequent alternative mode of travel. Cost was a factor in deciding to make the switch to the bus.

There is evidence of ticket substitution, particularly from returns and dailies to single tickets. Based on the operator data, the estimated average cost per trip in 2022 on return, daily, weekly and monthly tickets was below £2. While this should be interpreted cautiously as it relies on operator assumptions on the average number of trips per ticket, it provides an indication that more than half of bus trips would not be affected by the £2BFC.

However, there is a significant variation in the cost of period tickets across the country. The National Bus Fare Survey (TAS Partnership, 2023) carried out in 2022, for example, found that the cost of a weekly ticket in the UK ranged from £9.60 to £43.[51] The number of trips made per ticket also varies across the country. The average cost per trip masks this variation and means that there may still be a proportion of people who would financially benefit from switching from a period ticket to using £2 singles. There may also be non-financial benefits, such as greater flexibility or avoidance of a large upfront cost for period tickets.

This is reflected in the operator and Ticketer data. When comparing January to October 2023 to the same period in 2022, the sale of single tickets (reported by operators) increased by 85% compared to an overall increase in patronage of 13% (from Ticketer data), which suggests that there has been a degree of ticket substitution. At the same time, reported sales of return, daily and weekly tickets fell following the introduction of the £2BFC, with the greatest fall in the sale of return tickets (-34%) and daily tickets (-28%). This was supported by the survey results, which found that 26% to 30% of respondents (across all survey waves) stated they had switched from period tickets to single tickets following the introduction of the £2BFC. The sale of monthly tickets actually saw an increase of 7% over the same period, which suggests limited substitutability between these longer duration tickets and singles.

Barriers to travelling by bus still remain for some groups. For people who did not use the bus or change their travel behaviours as a result of the £2BFC, this was because of barriers to using the bus. Focus group participants felt that reliability and frequency of routes had not significantly improved and still served as a significant barrier to bus usage. Some 14%–21% of survey participants reported that bus services did not run when or where they needed them – this barrier would therefore not be addressed by any changes in fares.

51 TAS Partnership (2023). 7th TAS National Bus Fares Survey: 2022

9.3 The early impacts of the £2BFC on the cost of travel over the first 10 months of the scheme

The evidence suggests that the scheme has supported the cost of living by reducing travel costs. Based on the operator data, over the first 10 months, the £2BFC led to around a 27% reduction in the average cost of single tickets that had a pre-intervention cost of above £2 (i.e. fares reduced from an average of £2.73 to £2), although it should be noted that these make up less than half of total pre-£2BFC bus trips. Around 40% of the survey respondents reported saving money as a result of the £2BFC, with the results remaining consistent across the survey waves.

Around 30% of survey respondents said that the scheme had had a positive impact on the amount of income they had for other expenses and a similar proportion reported that it had had a positive impact on their disposable income. Of those taking part in the focus groups, those on lower incomes and those reliant on the bus as their main form of transport, reported that the £2BFC had had a positive financial impact on them. Additionally, focus group participants from rural areas suggested that the £2BFC had significantly reduced the high cost of bus fares in rural areas, with journeys tending to be of longer distance. Due to the cost savings from the £2BFC, focus group participants noted that they were able to spend money saved on purchasing fresh, healthy food, social occasions and making additional journeys for leisure.

9.4 Learnings on the VfM of the first 10 months of the scheme

The HMT Green Book (HMT, 2022) states that in order for an intervention to be considered VfM it needs to meet its strategic objectives and offer benefits greater than costs. The evaluation of VfM undertaken relied on a number of assumptions and should therefore be taken as an indicative assessment of whether the £2BFC has achieved VfM.

Actual DfT spend on bus operator reimbursement to date has been lower than planned even with high operator participation. The DfT's planned budget for Phases 1 to 3 of the £2BFC was £245m. Actual spend was 14% lower at £210m. In part, this could be due to the high levels of inflation built into the initial forecasts, given the economic circumstances at the time. It should be noted that there has been very little change in operator participation over the course of the £2BFC, and the DfT estimates that operator participation is around 90% of the market in terms of patronage.

The evidence suggests that the scheme has achieved its strategic objectives. It has reduced the cost of living and increased bus patronage (see evidence above), particularly for those on lower incomes. The main beneficiaries of the scheme are likely to be people who used single tickets prior to the scheme and would have made their bus journeys even without the £2BFC. There are also benefits for those making new trips as a result of the lower cost of bus travel, the majority of whom are likely to have shifted from other modes, mainly the car, and travel for leisure rather than work or educational purposes.

The value for money of the £2BFC is challenging to assess, though can reasonably be considered 'low' VfM[52] (i.e. BCR above 1) after accounting for the additional benefits that are not possible to quantify. The preliminary benefit–cost ratio (BCR) is estimated to be 0.71–0.9, although this does not include all the benefits of the scheme. Fieldwork suggests these include the savings to people who switch modes to buses and the wellbeing benefits of reducing the cost of bus travel for all passengers who would have used the bus even without the fare cap. There are also distributional impacts. Preliminary analysis of the potential scale of the wellbeing effects alone suggests it is reasonable to believe the BCR is at least above 1 (categorised as low VfM).

More broadly, it is important to recognise that the average effects of the scheme mask how the policy is experienced by different groups. For those in higher socio-economic groups, the scheme is likely to have had a positive impact on access to all activities, whereas evidence from the focus groups and survey suggests that the scheme has had a greater financial impact on those on lower incomes, increasing income available for other expenses, spending or saving.

9.5 Learnings on the delivery of the first 10 months of the scheme

The intended objectives of the scheme were clear from the start. Overall, the DfT representatives were satisfied with the £2BFC policy design and noted that clear objectives and processes had been developed at an early stage. There had been extensive engagement between DfT, operators and representative organisations during this period to reflect their views in the formation of the policy. This was reflected in feedback from operators who felt confident about the intended objectives of the scheme early on.

There was less clarity on the reimbursement process, and the data requirements were burdensome to some operators and DfT. Operators felt the mechanisms surrounding the reimbursement calculations could have been made more transparent sooner at the policy design stage, so that they could have formed a sound understanding of what their involvement would require. Operators appreciated the increased clarity provided on the reimbursement processes and terms as the scheme progressed.

Once the scheme had been implemented and mobilised, the repayment process was delivered as scoped, with bus operators noting the timeliness of the payments. However, some operators noted burdensome data requirements and raised concern regarding how inflation had been accounted for in DfT's calculations. The concerns were greater for smaller operators. DfT representatives also highlighted resource constraints in the processing and validation of data from operators to calculate reimbursements and recognised the difficulties faced by operators.

[52] This categorisation is based on the DfT Guidance: DfT (2016) Value for Money Supplementary Guidance on Categories, available at https://assets.publishing.service.gov.uk/media/5f62378bd3bf7f7232e7e6d9/value-for-money-supplementary-guidance-on-categories.pdf

A number of factors, including the reimbursement process, were considered by operators when deciding to participate in the scheme, and these were predominantly finance led.

A clear review process was in place for considering extensions to the scheme and operator feedback was used to make improvements to the third phase. DfT stakeholders felt that clear review processes had been in place when considering extensions of the £2BFC. Despite this, extensions were subject to resourcing and funding constraints and significant efforts were made by DfT and operators to mobilise the potential change from £2.00 to £2.50, which had been planned for November 2024 as part of the second extension of the scheme. Ultimately, this planned increase did not occur as the £2 fare cap was extended to 31 December 2024. Given operator feedback on the intensive data requirements of the scheme, following the first two extensions the DfT used the third extension as an opportunity to adjust requirements.

With regards to the policy close-out, DfT and operators recognised that this would have impacts on passengers and operators but noted that there was currently no close-out plan for the scheme. Operators showed a preference for a phasing-out approach, which would better help to manage passenger expectations.

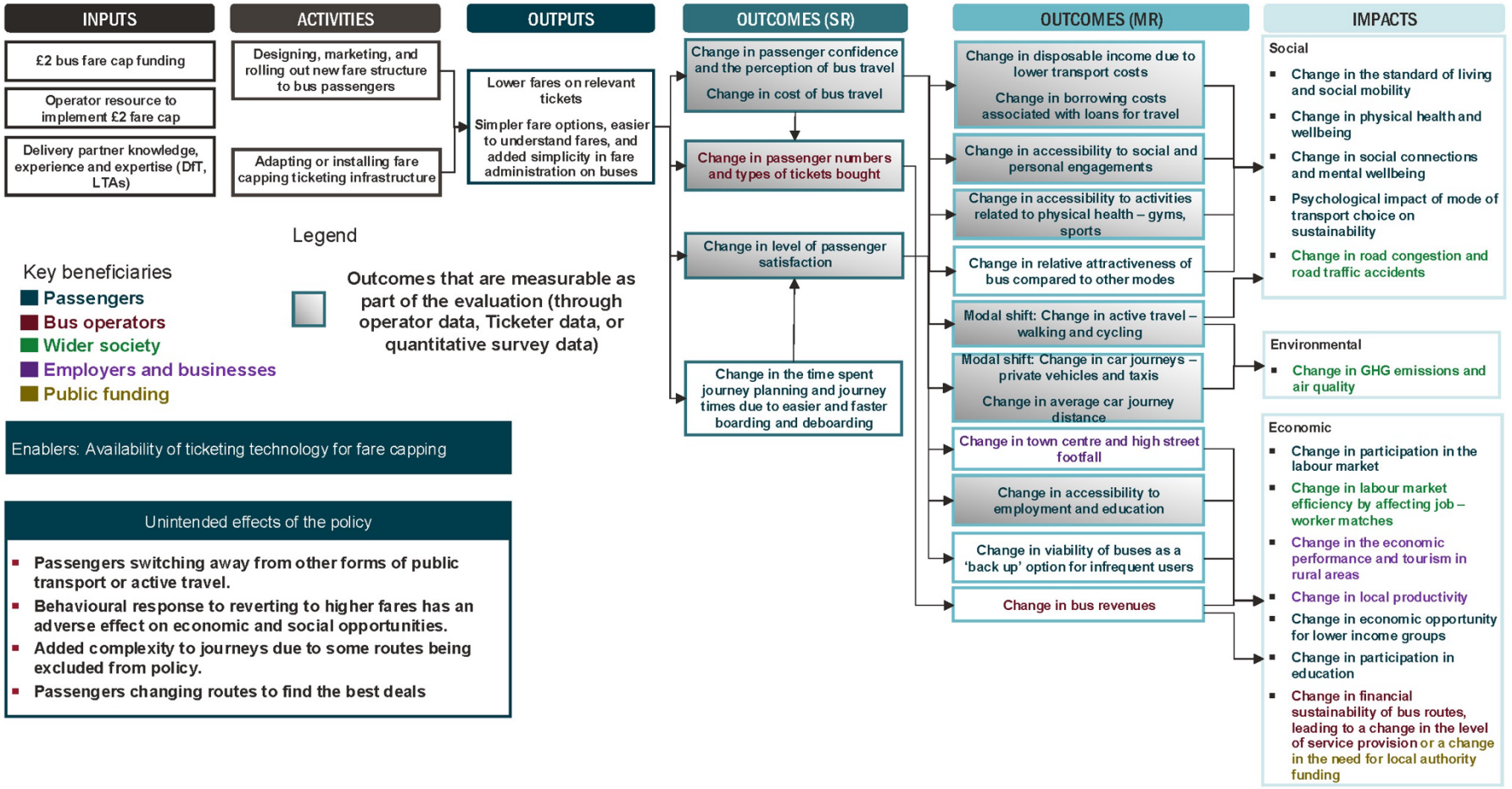
9.6 Other learnings on the impact of the £2BFC over the first 10 months of the scheme

Operators perceived the scheme to have supported patronage but noted that this benefit had not been achieved without some unintended impacts. The key challenge for operators, particularly smaller operators, was the extensive data required to process reimbursements from DfT, especially in the run-up to extensions of the scheme.

Operators had also frequently experienced capacity issues across specific routes due to increased passenger demand. However, not all operators had made changes to frequency and service levels to accommodate the increased capacity. Those who had not made changes viewed any investment as a risk, due to a lack of certainty on passenger demand following the end of the scheme.

Other negative impacts of the £2BFC on operators' bus services included greater resource pressure for drivers, mechanics and the bus fleet. Some operators also reported that the scheme had had an impact on their ability to make commercial decisions, either because they were not in control of setting fare structures across routes or because the change in the type of tickets purchased generated less useful ticket sales data to inform commercial decisions.

Annex A Impact logic map



Annex B Secondary data strengths and limitations

Data source	Strengths	Potential limitations
Secondary data – Operator	▪ The operator data is limited to only eligible routes and journeys by participating operators, ensuring that observed patronage and revenue figures do not include ineligible journeys (such as journeys on concessionary fares or on non-participating operators). ▪ The dataset separately provides information on ticket sales and revenues for the major ticket types, allowing a more detailed investigation into trends in ticket substitution in addition to trends in overall patronage.	▪ The data provided by smaller operators (or SMEs) is generally less detailed and less robust than that provided by the Big % operators and their subsidiaries. As such, the trend analysis and quasi-experimental analysis is restricted to the latter group only. As a result, the observations from the analyses may be less reflective of the impact of the £2BFC on smaller operators if this is different from the impact on larger operators. ▪ The data was provided on aggregate across the operator's entire area of operation, making it difficult to disaggregate observed changes in patronage based on rurality or specific routes.
Secondary data – Ticketer	▪ Data on total patronage is available at a daily level, for each of the eight regions (excluding London), allowing a more granular assessment of the observed trends in patronage.	▪ The data on patronage is not available in absolute terms, but as a proportion of patronage prior to the COVID-19 pandemic. In other words, the dataset presents bus patronage on a given day as a proportion of bus patronage on the same day of the week in the third week of January 2020.[53] As such, it is difficult to interpret the results of the analysis based on this dataset as absolute increases in observed patronage. ▪ The Ticketer dataset covers all bus patronage, including journeys on concessionary fares as well as journeys on routes and/or operators ineligible for the £2BFC, potentially due to existing fare schemes. Additionally, Ticketer does not include patronage on services operated by some operators who represent a large proportion of total patronage in the market. As such, the inferences drawn from an analysis of the Ticketer data need to be interpreted with these caveats in mind. ▪ The proportion of the market covered by Ticketer data varies over time with the use of the associated onboard ticketing software. It has not been possible to explicitly account for this in the analysis. If there were significant changes in the proportion of operators included in the Ticketer data, this could impact the observed trends and associated inferences.
Secondary data – TfL bus patronage	▪ As the data is available at a daily level, it can be used in conjunction with the Ticketer data to undertake comparability analyses. ▪ Unlike Ticketer, the TfL data presents absolute patronage figures, allowing a more direct interpretation of observed trends in patronage.	▪ While bus patronage in London appears to follow very similar trends to bus patronage in England, on aggregate, the comparability of pre-fare cap trends between London and the individual regions is less robust.

[53] For example, if the value for Wednesday 5 July 2023 was 0.76, that would be interpreted as 'Patronage on Wednesday 5 July 2023 was 76% of the patronage on Wednesday 15 January 2020'.

Annex C Primary data collection methodology

Full details on the research activities undertaken to support the evaluation of the £2BFC are set out below.

C.1 National survey

Four waves of an online survey were undertaken using a national panel provider. Survey waves were undertaken as follows:

- **Wave 1:** 20 December to 30 December 2022 (Pre-scheme Baseline)
- **Wave 2:** 30 January to 10 February 2023
- **Wave 3:** 30 October to 9 November 2023
- **Wave 4:** 15 January to 24 January 2024

Those aged 16 years and over outside of London were in scope for the survey, with representative quotas on English region, age and gender, based on 2020 population statistics, in addition to minimum sample targets for bus users and non-users.

The sample size and associated confidence interval[54] for each wave of the survey are detailed below.

	Wave 1	Wave 2	Wave 3	Wave 4
Achieved sample size	4,014	4,007	4,011	4,014
Confidence interval	+/-1.55%	+/-1.55%	+/-1.55%	+/-1.55%

For all waves, the achieved sample was very close to the targeted population in terms of age and gender. However, in order to ensure that the results of the survey were representative of the targeted population, post-stratification weighting was applied. Weighting factors between 0.82 and 1.28 were calculated for each wave in Excel and applied in SPSS statistical analysis software, as follows:

- Using 2020 population estimates, the interlocking proportions of the population within four age categories (16–24, 25–49, 50–64 and 65+) and two gender categories (Male, Female) were identified.
- The 2020 population estimates were multiplied with the total achieved sample to create weighting factors.

54 Confidence intervals provide a plus-or-minus figure that should be applied to the survey findings. For instance, for the Wave 1 findings, a confidence interval of +/-1.55%, means that if 50% of the Wave 1 sample said they were frequent bus users, we could be sure that the true value lies within 48.45%-51.55%.

- Weighting factors were applied in SPSS by creating a variable within the datafile that assigned the relevant weighting factor to each age x gender interlocking sub-sample.

The survey structure was as follows:

- Introduction and data protection
- Quotas
- Current travel behaviour
- Current bus fares and tickets purchased
- (Wave 1 only) Awareness of bus fares initiatives across the UK, including the upcoming national £2BFC
- (Wave 1 only) Anticipated behavioural response to a £2BFC
- (Waves 2, 3 and 4 only) Awareness of the national £2BFC
- (Waves 2, 3 and 4 only) Self-reported behavioural response to a £2BFC
- Perceived impacts of the £2BFC on cost of living
- Demographic data to understand the views, behaviours and needs of different groups of people

All cleaning and analysis of survey data was undertaken in statistical analysis software SPSS.

Frequencies were run for each question in the survey, and cross tabulations and chi-square tests of significance were run by key demographics.

Where significant variations from chi-square tests are reported, they are described as follows: ‘This difference is statistically significant.’

Please note that, at this stage, significance testing has not been undertaken to check for any statistically significant variations across waves. All comparisons across waves are descriptive only.

Additionally, due to routing and respondents choosing not to provide some answers, the base size for findings detailed throughout this report may vary from the total sample size. The base number for each question is provided. In addition, where percentages do not total 100%, this is due to rounding or the multiple response nature of the question. Where multiple responses to a question were possible, this is indicated throughout the report using ‘MRQ’ in the relevant table or figure headings.

C.2 Public focus groups

Two online focus groups were completed with members of the public using Microsoft (MS) Teams during February 2024.

Members of the public were recruited to take part in the focus groups by SYSTRA's specialist recruitment partner. Recruitment took place at all times of day, including the evening, and during different days of the week. Participants received a financial incentive for their time.

A total of eight participants who met the criteria listed below were invited to take part in each focus group, meaning that a total of 16 participants were invited to participate across the two focus groups:

- Participants must have used the bus outside of London since 1 January 2023; and
- Participants must be aware of the £2BFC.

Quotas were set to ensure a good mix of age and gender within each of the two focus groups, in addition to a good mix across the whole focus group sample. The table below details how these quotas were set along with the profile of the final focus group sample achieved.

	Quota category	Quota targets (n=16)	Quota targets per group (n=8)	Final focus group sample (n=16)
Age	18–34	min 4	min 2	9
	35–59	min 4	min 2	6
	60+	max 2	max 2	1
Gender	Male	min 7	min 5	8
	Female	min 7	min 5	8

Each of the two focus groups centred on a key theme, based on the core evaluation questions and the early evaluation observations. These key themes were:

- Patronage and cost of living impacts resulting from the £2BFC; and
- Other factors impacting bus patronage.

Each focus group followed a semi-structured topic guide. The table below details the topic areas covered within each focus group session.

Topics	Patronage and cost of living impacts resulting from the £2BFC	Other factors impacting bus patronage
General bus travel perceptions and influences on bus travel choice		✓
Awareness and use of the £2BFC	✓	✓
Impact of the £2BFC on bus frequency, perceptions of bus travel	✓	✓
Impact of the £2BFC on travel costs	✓	
Impact of the £2BFC on cost of living	✓	
The extent to which the £2BFC addresses any barriers to bus travel		✓

All discussions were recorded with participant consent, ensuring that detailed write-ups could be completed by the moderator. The data underwent thematic analysis wherein each write-up was read several times and emergent core messages were clustered together to devise higher-order themes. These themes have been reported on, with the inclusion of verbatim quotations.

As with the interpretation all qualitative data, the following should be noted:

- The small sample size of participants recruited;
- The sample of participants is self-selecting and therefore the findings do not aim to be representative of the general population; and
- The views and opinions reported are the views and perceptions of participants and are not necessarily factually correct.

C.3 Stakeholder interviews and DfT workshop

Stakeholder interviews approach

In order to understand the process of delivering the £2BFC, all participating operators were invited to take part in a one-to-one 60-minute video-call interview at two time periods:

- February 2023 (nine interviews completed); and
- February to March 2024 (10 interviews completed).

Operators were invited through the EY-helpdesk email which is used by operators to submit data returns on ticket sales and revenue. Additionally, one organisation that represents the wider bus industry was invited to provide feedback.

Overall, a total of 19 interviews were completed, of which:

- 18 were with representatives from across 15 operators (five Big, two LSME, eight SME).
- One was with a representative organisation.

Discussions followed a semi-structured topic guide which was structured as follows:

- Stakeholder role
- Observations on the application process
- Observations on mobilisation and delivery
- Observations on extensions (second phase interviews only)

DfT workshop approach

In order to understand the process of designing and delivering the scheme from DfT's perspective, members of the DfT policy and commercial teams who were involved in the design and delivery of the £2BFC were invited to attend a two-hour online workshop on 12 March 2024. A total of four team members attended the meeting.

Discussions followed a semi-structured topic guide which was structured as follows:

- Role and responsibilities
- Observations on the scheme creation and design
- Observations on mobilisation and delivery
- Observations on extensions
- Expectations for close-out

Analysis and reporting

All discussions were recorded with participant consent, ensuring that detailed write-ups could be completed by the moderator. The data underwent thematic analysis wherein each write-up was read several times and emergent core messages were clustered together to devise higher-order themes. These themes have been reported on, with the inclusion of verbatim quotations.

As with the interpretation of all qualitative data, the following should be noted:

- The small sample size of participants who took part;
- The sample of participants is self-selecting and therefore the findings do not aim to be representative of those delivering the £2BFC nationally; and
- The views and opinions reported are the views and perceptions of participants and are not necessarily factually correct.

Annex D Technical difference-in-difference (DiD) results

As part of this evaluation, a difference-in-difference (DiD) analysis was carried out. This analysis applied a quasi-experimental approach to establish a more robust causal link to identify whether any of the observed changes in bus patronage can be directly attributed to the reduction in fares through this scheme.

This analysis relies on a similar set of data to that used for the trend analysis. In particular, it relies on:

- **Operator data:** The operators participating in the scheme provided detailed monthly information on total ticket sales, patronage, service kilometres and revenues across the main ticket types, including single and return tickets as well as longer-term period tickets (daily, weekly and monthly) encompassing January 2022 to October 2023.
- **Ticketer data:** Ticketer is an onboard ticketing software that records every boarding across all bus journeys provided by partner operators and covers the majority of bus operators. The dataset presents patronage on a daily level as a proportion relative to patronage on the same day in a January 2020 reference week (i.e. as a proportion of the pre-COVID-19 levels).
- **TfL data on bus patronage:** Daily patronage data across all Transport for London buses.
- **Public data:** Publicly available data on strike action.

This analysis was only carried out for the 10-month period from January to October 2023, using January to October 2022 data as a pre-intervention comparator. November and December 2022 were excluded from the analysis for comparability to the post-cap data availability.

The quasi-experimental analysis involved two forms of analysis:

- A DiD analysis using London as a ‘counterfactual’ for the rest of England; and
- A ‘treatment intensity’ based analysis using variation in the average saving on capped single tickets across the operators as a result of the fare cap, to explain observed variation in patronage.

Each of these is discussed in turn below.

D.1 DiD analysis using a control group

DiD is a statistical method used to estimate the incremental impact of a ‘treatment’ (i.e. the £2BFC policy) by comparing the outcomes observed across a ‘treatment group’ and comparing those to outcomes observed across a ‘control group’.

In this assessment, the ‘treatment’ refers to the introduction of the £2BFC, and the ‘treatment group’ is the set of operators (or regions) where the £2BFC has been implemented. In other

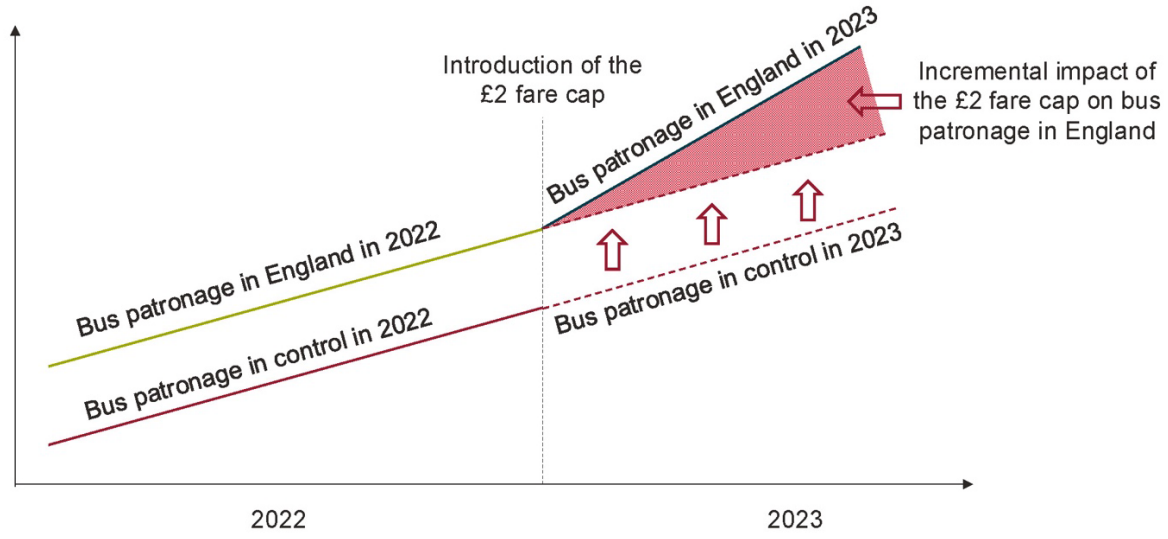
words, the 'treatment group' covers the entirety of England, outside of London.[55] However, note that, due to the limitations in the coverage of the datasets used and some regions not participating in the £2BFC where they have their own fare schemes in operation (such as Manchester and Liverpool), the available Ticketer data does not exactly match the areas where the £2BFC was in operation.

The outcome of interest in this analysis is bus patronage.

The economic rationale underlying the DiD approach is that the trends in patronage observed in an identified 'control group' represent how patronage would have evolved in England if the fare cap had not been implemented. The patronage changes can be compared in the treatment group prior to the cap (before 2023) to post cap (after 2023) in England (outside London) with how it changed in the control group, to arrive at an estimate of the incremental impact of the £2BFC on bus patronage to date.

Figure 39 below presents a stylistic representation of the theory behind a DiD analysis. Observed bus patronage in the control group in 2023 is used as a 'counterfactual' for what bus patronage would have looked like in England if the fare cap had not been implemented.

Figure 39 Difference-in-difference analysis



Note: This is only a stylistic representation

Note that all analyses were undertaken using a log transformation of the dependent and explanatory variables to ensure that the results can be interpreted in the form of percentage changes.

55 Note that for the remainder of this discussion, any reference to 'England' is to be interpreted as England excluding London, unless stated otherwise.

Parallel trends test

A critical criterion to ensure that a DiD analysis is robust is the establishment of parallel pre-treatment trends between the treatment and control groups. In other words, it is important to identify a control group where, prior to the implementation of the fare cap, patronage evolved in a similar manner and had similar responses to external shocks. This is because, if the groups exhibited different trends prior to the cap, then it cannot be robustly claimed that, in the absence of the fare cap, patronage in England would have followed the same trends as those observed in the control group.

London compared to the rest of England

As stated above, the £2BFC was not implemented in London. This provides an opportunity to estimate the incremental impact of the £2BFC on patronage outside of London by comparing it to patronage trends in London prior to and following the introduction of the cap.

It is first important to conduct the parallel trends test to assess the comparability in bus patronage between the two regions. Figure 40 below presents the bus patronage (as a proportion of their respective reference levels) in London and the rest of England between January and October 2022. The chart shows that patronage in both regions increased from approximately 70% of pre-COVID levels in January to approximately 90% of those levels in October.

Figure 40 Patronage in England and London across January to October 2022, as a proportion of pre-COVID levels

Source: Ticketer, DfT Bus patronage
Note: The data is aggregated at a weekly level to address daily volatility and help with visual interpretation

More importantly, however, patronage in both regions appears to follow a similar trend over time and has very similar responses to shocks (i.e. the peaks and troughs in patronage coincide across both time series). This suggests that patronage in both regions evolves in a similar fashion and, in the absence of any external shocks, patronage in one region could be used to approximate patronage in the other.

As such, the parallel trend test criterion for London is fulfilled, meaning that trends in London patronage can be used as a counterfactual to what the trends in England would have looked like in the absence of the fare cap, allowing an estimation of the causal impact of the fare cap on bus patronage.

The remainder of this section describes the results of each specification used in this analysis. In line with Office for National Statistics (ONS) guidance,[56] the term 'percentage point' is used when comparing growth rates in London to the rest of England – for example, if the growth rate in London was 8% and the growth rate in the rest of England was 13%, this would be a 5 percentage point difference. The term '%' is used to compare absolute patronage levels.

Specification 1: Incremental increase in patronage across the rest of England

The first specification compares the average patronage in London to the average patronage in the rest of England prior to, and following, the implementation of the £2BFC in the rest of England.[57]

$$ln\_ptrng_{jt} = \alpha + \beta_t month_t + \delta london_j + \gamma treated_{jt} + \theta strike_{jt} + \mu weekday_t + \varepsilon$$

The focus of the assessment is to identify a causal impact of the £2BFC on bus patronage to date. It is therefore important to include other 'control variables' in the analysis to ensure that the impact of these variables is not erroneously attributed to the fare cap. The variables above can be interpreted as follows:

- *ln_ptrng*: Natural log of bus patronage as a proportion of the January 2020 reference level.[58]
- *london*: Dummy indicator for London observations
- *treated*: Dummy indicator for rest of England observations that are in 2023, i.e. those observations that are affected by the £2BFC. This is the variable of interest.
- *strike*: Dummy indicator for days with bus strike action[59]

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56 ONS Service Manual. Accessed at: https://service-manual.ons.gov.uk/content/numbers/percentages

57 Across all specifications, variables with the 'j' subscript represent those that vary across cross-sectional units (here, regions), variables with the 't' subscript represent those that vary across time period (days or months), and variables with the 'jt' subscript represent those that vary across both dimensions.

58 Note that the analysis calculates the natural logarithm (log) of patronage, to aid with the interpretation of the coefficients.

59 Available from: www.strikecalendar.co.uk

- *weekday*: Dummy indicator for weekday observations
- $month_j$: Monthly time dummy variables

Table 13 presents the results from the regression above.

Table 13 Specification 1

Explanatory variable	Coefficient	% change	95% Confidence Interval
treated	**0.049*** **	**5.0%**	**[0.020, 0.079]**
london	0.051***	5.3%	[0.029, 0.074]
strike	- 0.023	-2.3%	[-0.059, 0.013]
weekday	-0.147***	-13.7%	[-0.160, -0.134]
constant	4.376***		[4.349, 4.404]
monthly time dummies	INCLUDED		

Source: Frontier analysis of Ticketer data and DfT bus patronage

*Note: * - Significant at the 10% level*
*** - Significant at the 5% level*
**** - Significant at the 1% level*

In particular, the coefficients can be interpreted as follows:

- δ: The coefficient on the 'london' variable shows the average relative patronage level in London compared to the rest of England, over 2022 and 2023. That is, in London, bus patronage was 5.3% closer to the January 2020 reference levels than it was in England, over the entire period. [60]
- μ: The coefficient on the 'weekday' variable suggests that, on weekends, bus patronage was 14.7% closer to the January 2020 weekend reference levels than it was on weekdays, over the entire period. This suggests that the recovery in bus patronage post COVID was stronger on weekends.
- γ: The coefficient on the 'treated' variable shows the additional growth in patronage experienced in the fare cap regions (i.e. England) over and above that seen in the control region (i.e. London). The analysis suggests that, following the introduction of the £2BFC in 2023, bus patronage from the 10-month period of January to October 2022 to the same period in 2023 increased by 5 percentage points more in the rest of England than it did in London. This can be assumed to be the incremental impact of the fare cap on bus patronage, i.e. a 5% increase in absolute patronage, assuming that London is an appropriate counterfactual region.

[60] As the patronage data has been log transformed, the interpretation of the coefficients requires taking an exponent of the estimated value. Specifically, the estimate is equal to exp(coefficient)-1.

All coefficients above are statistically significant at the 5% confidence level.

The coefficient on the 'strike' variable is not statistically significant, suggesting that there is considerable variation in the effects of bus strikes. As some strike action is national (and likely severe) and other strike action is more localised, it is unclear whether they have a consistently negative effect on patronage.

Specification 2: Average incremental increase in patronage across the regions

The specification below builds on the assessment above by comparing the average patronage in London to the average patronage across the eight regions prior to, and following, the implementation of the £2BFC, but taking account of regional variation in the underlying drivers of patronage. As in Specification 1, this still presents an average national impact of the £2BFC across the rest of England, but now controlling for regional fixed effects. As such, this represents a refinement to the previous assessment by disaggregating the drivers of patronage across the eight regions.

$$ln\_ptrng_{jt} = \alpha + \beta_t month_t + \delta_j region_j + \gamma treated_{jt} + \theta strike_{jt} + \mu weekday_t + \varepsilon$$

The variables are identical to those set out in Specification 1, with the only difference being the addition of the *region*$_j$ variables, which consist of nine dummy indicators, one for each region including London.

Table 14 presents the results from the regression above.

Table 14 Specification 2

Explanatory variable	Coefficient	% change	95% Confidence Interval
treated	**0.048****	**4.9%**	**[0.029, 0.068]**
East of England	-0.104***	-9.9%	[-0.125, -0.082]
East Midlands	0.033***	3.4%	[0.012, 0.053]
North East	-0.096***	-9.2%	[-0.120, -0.072]
North West	-0.039***	-3.8%	[-0.063, -0.017]
South East	-0.058***	-5.6%	[-0.076, -0.040]
South West	-0.039***	-3.8%	[-0.058, -0.021]
Yorkshire and The Humber	-0.089***	-8.5%	[-0.107, -0.072]
West Midlands	-0.048***	-4.7%	[-0.073, -0.023]
strike	-0.327***	-27.8%	[-0.428, -0.226]

Explanatory variable	Coefficient	% change	95% Confidence Interval
weekday	-0.139***	-13.0%	[-0.150, -0.129]
constant	4.434***		[4.409, 4,459]
Monthly time dummies	INCLUDED		

Source: Frontier analysis of Ticketer data and DfT bus patronage

*Note: * - Significant at the 10% level*
*** - Significant at the 5% level*
**** - Significant at the 1% level*

The coefficients can be interpreted as follows:

- δ_i: The coefficient on the regional variables shows the average relative patronage level in that region compared to London over 2022 and 2023. For example, across the entire period, patronage in the East Midlands was 3.4% closer to its pre-COVID baseline than patronage in London was. On the other hand, patronage in the East of England was 9.9% further from its pre-COVID baseline than patronage in London was. This implies that the East Midlands was the only region that showed a stronger post-COVID recovery (over the entire time period in question) than London.
- θ: The coefficient on the 'strike' variable is statistically significant when including regional dummies, which suggests that, on days when there was strike action, there is evidence that bus patronage was 27.8% lower than days without strike action.
- μ: The coefficient on the 'weekday' variable suggests that on weekends bus patronage was 13% closer to the January 2020 weekend reference levels than it was on weekdays, over the entire period.
- γ: The coefficient on the 'treated' variable shows the additional growth in patronage experienced in the fare cap regions, over and above that seen in London. The analysis suggests that, following the introduction of the £2BFC in 2023, bus patronage from the 10-month period of January to October 2022 to the same period in 2023 increased by 4.9 percentage points more in the rest of England than it did in London, taking account of regional variation in the drivers of patronage. This can be assumed to be the incremental impact of the fare cap on bus patronage, i.e. a 4.9% increase in absolute patronage, assuming that London is an appropriate counterfactual region.
  - This is very similar to the 5.0% estimate from Specification 1, which suggests that the national aggregation across the regions does not impose any material biases to the analysis.
- All coefficients above are statistically significant at the 5% confidence level.

Differential impact on weekdays compared to weekends

Econometric methods are employed to identify whether the observed weekend differential in observed patronage through the trend analysis is indeed significant and what proportion of the observed difference, if any, can be attributed to the £2BFC. This is done by comparing the

change in weekend and weekday patronage prior to and after the cap in the rest of England to the observed change in weekend and weekday patronage in London.

The analysis also aims to identify any variation in this differential across the different regions. The analysis is carried out across three specifications:

1. **Average weekend impact across England:** The first specification does not take account of regional variation in the drivers of patronage and aims to identify evidence of a differential weekend impact of the £2BFC in aggregate across the entirety of England.
2. **Average weekend impact across England, accounting for regional variation:** This refines the above specification to include 'regional fixed effects' to account for any underlying variation in the drivers of patronage between the different regions. However, this specification still aims to identify an aggregate impact across the entirety of England.
3. **Weekend impact by region:** Finally, this specification aims to separately identify evidence of a differential weekend impact of the £2BFC for each of the eight regions.

Specification 3a: Average weekend impact across England

The specification is similar to Specification 1, but has an additional variable to represent whether the observation is a weekday or weekend.

$$ln\_ptrng_{jt} = \alpha + \beta_t month_t + \delta london_j + \rho weekday_t + \gamma_1 treated_{jt} + \gamma_2 (treated_{jt} * weekday_t) + \theta strike_{jt} + \varepsilon$$

The coefficient on treated (γ_1) presents the incremental patronage change in England compared to London on weekends only, whereas the coefficient on (treated*weekday) (γ_2) reports whether this is significantly different to the incremental change on weekdays. The latter is the coefficient of interest.

Table 15 Specification 3a

Explanatory variable	Coefficient	% change	95% Confidence Interval
treated	**0.057*** **	**5.6%**	**[-0.248, 0.089]**
weekday	-0.144***	-13.4%	[-0.158, -0.130]
treated*weekday	**-0.011**	**-1.1%**	**[-0.045, 0.023]**
constant	4.374***		[4.347, 4.402]
Monthly time dummies	INCLUDED		
Regional dummies	INCLUDED		

Source: Frontier analysis of Ticketer data and DfT bus patronage

*Note: * - Significant at the 10% level*
*** - Significant at the 5% level*

**** - Significant at the 1% level*
The table only reports a subset of estimates, for ease of visual interpretation

- ρ: The coefficient on the 'weekday' variable suggests that patronage on weekends was 13.4% closer to its January 2020 reference level as compared to weekdays, across the entirety of England (including London) over 2022 and 2023. While this is not the incremental impact, it does suggest that across the entire time period, weekend travel was indeed exhibiting greater recovery to pre-COVID baselines.
- γ_1: Additionally, the increase in patronage in England **from the 10-month period of January to October 2022 to the same period in 2023** was **5.6 percentage points higher** relative to London **when looking at the weekends only**. This is higher than the 5 percentage points reported in Specification 1 across all days, which suggests a marginally higher impact of the fare cap on weekend travel. This is in line with the hypothesis of a greater impact of the cap on discretionary travel.
- γ_2: However, while the coefficient on (treated*weekday) shows that the incremental impact of the fare cap was 1.1% lower on weekdays, this is not statistically significant, which suggests that the **evidence for a differential weekend impact is inconclusive**.

Therefore, based on an assessment of observed trends in weekend and weekday travel in England and London, there is no evidence to suggest that the £2BFC had a larger impact on weekend travel across England in aggregate. However, this analysis is further refined below by including regional control variables.

Specification 3b: Average weekend impact across England, accounting for regional variation

The next specification includes regional dummies to account for regional variation in the drivers of patronage, to estimate an average weekend impact across England (excluding London). This takes the following form:

$$ln\_ptrng_{jt} = \alpha + \beta_t month_t + \delta_j region_j + \rho weekday_t + \gamma_1 treated_{jt} + \gamma_2 (treated_{jt} * weekday_t) + \theta strike_{jt} + \varepsilon$$

with regional dummies (*region$_i$)* for each of the nine regions, including London.

Table 16 Specification 3b

Explanatory variable	Coefficient	% change	95% Confidence Interval
treated	**0.064*****	**6.6%**	**[0.041, 0.087]**
weekday	-0.129**	-12.1%	[-0.144, -0.114]
treated*weekday	**-0.022****	**-2.2%**	**[-0.043, -0.002]**
constant	4.488***		[4.470, 4.505]

Explanatory variable	Coefficient	% change	95% Confidence Interval
Monthly time dummies	INCLUDED		
Regional dummies	INCLUDED		
Bus strike action	INCLUDED		

Source: Frontier analysis of Ticketer data and DfT bus patronage

*Note: * - Significant at the 10% level*
*** - Significant at the 5% level*
**** - Significant at the 1% level*
The table only reports a subset of estimates, for ease of visual interpretation

The disaggregated analysis shows that the increase in patronage in England **from the 10-month period of January to October 2022 to the same period in 2023 was 6.6% higher** relative to London, **when looking at the weekends only**. This estimate is higher than the average estimate across all days (4.9%) reported under Specification 2, again suggesting the potential for a differential weekend impact.

However, critically, as opposed to the observation in Specification 3a, the coefficient on (treated*weekday) is statistically significant, meaning that there is indeed evidence to claim that the £2BFC had a larger differential impact on weekend bus travel.

Combining the γ_1 and γ_2 coefficients can be jointly interpreted as:

- Incremental impact of the £2BFC on weekends (γ1): Bus patronage in the rest of England grew by **6.6 percentage points more than London when looking at weekend travel only**.
- Incremental impact of the £2BFC on weekdays (γ1+γ2): Comparing weekends and weekdays, there is a 2.2% higher impact on weekends relative to weekdays, an effect that is statistically significant. This implies that for weekdays, patronage is **4.4% higher than if it had followed the London trend**.

It is possible that the insignificant result in Specification 4a was a result of national aggregation around trends in weekend travel across the regions. Including regional dummies disaggregates this and presents a clearer picture of the differential trends in weekend and weekday bus patronage. As such, the data does indeed present evidence that the £2BFC had a larger proportional impact on weekend/discretionary travel than on weekday travel.

Specification 3c: Weekend impact by region

Finally, this observed weekend differential can be further disaggregated to estimate a separate weekend impact for each region. This analysis can be used to identify whether any of the regions show a particularly high, or particularly low, differential weekend impact, potentially indicating variations in the underlying demand patterns for bus use across the regions.

However, none of the region-specific weekend impacts estimated from this analysis are found to be statistically significant. As such, the data does not present any conclusive evidence of

there being a larger impact of the £2BFC on weekends when the analysis is expanded to identify varying regional estimates.

While this is in contrast to the significant estimate presented in Specification 3b, it is likely that this result is due to the limitations of the dataset used and the statistical methodology, which do not permit such a granular estimation of a causal link between the fare cap and bus patronage. The absence of an estimate in this specification does not undermine the previous result but simply indicates that the data is insufficient to undertake this detailed investigation.

D.2 Variation in average savings on capped fares across operators

To identify whether there is a potential relationship between the observed savings on capped single tickets and observed changes in patronage, this impact evaluation adopts a 'treatment intensity' based analysis using variation in the average saving on capped single tickets across the operators as a result of the fare cap to explain observed variation in patronage.

This set of regression analyses adopts a similar methodology to the DiD approach, but instead of identifying a control group that was not subjected to the treatment (i.e. £2BFC), it aims to exploit the variation in the average savings associated with single tickets[61] prior to and after the cap across the operators. In other words, the analysis compares the trends in patronage across those operators for whom the average saving with the £2BFC was relatively lower on single tickets with the change in patronage for those operators for whom the average fare saving with the £2BFC was relatively higher.

Therefore, the operators that had a lower pre-cap price (and therefore, gave rise to lower savings) implicitly represent a counterfactual for operators with higher saving percentages (i.e. higher pre-cap prices).

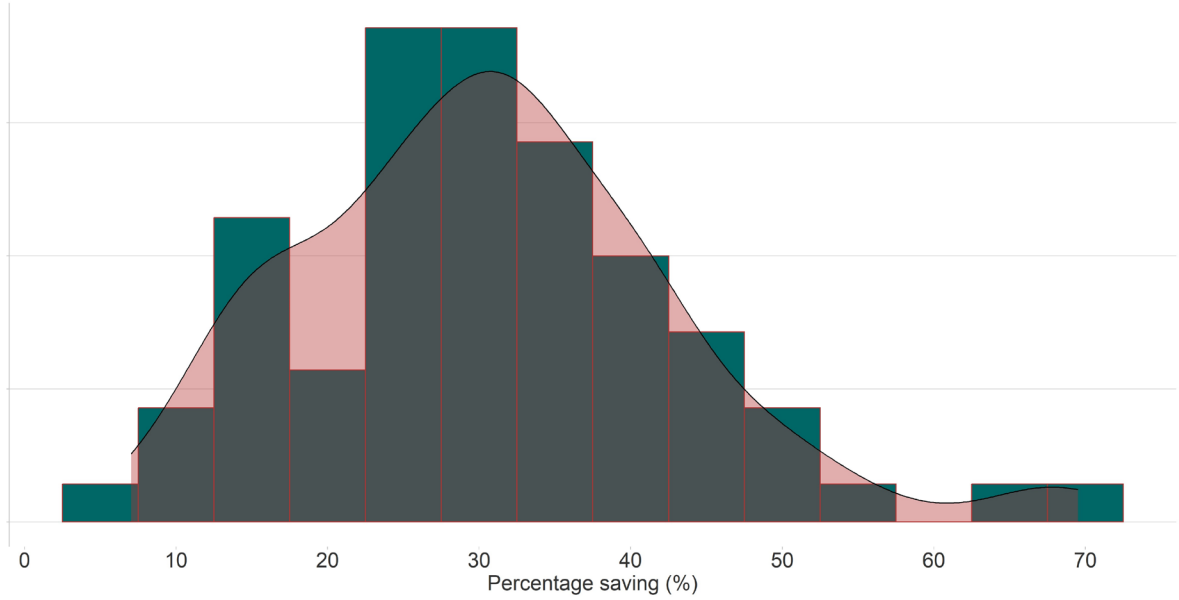
The average savings used for this analysis are calculated by comparing the average price across all eligible single tickets[62] prior to the implementation of the fare cap (i.e. 2022) to the price following the implementation of the fare cap (i.e. 2023) after the cap, for each operator. The average saving is then the percentage increase from the pre-cap price to the post-cap price.

Across the 69 Big and LSME operators that form part of the analysis, the average savings ranged between 7% and 70%. Figure 41 presents the distribution of the average savings on eligible single tickets across participating Big and LSME operators. The bulk of operators offered savings of between 25% and 40%.

61 This only includes those tickets that had a pre-cap price of more than £2.

62 Calculated by dividing the total revenues by total ticket sales for all eligible single tickets

Figure 41 Distribution of average savings across the sample



Source: *Operator £2BFC3 Monitoring data*

Note: *This only includes 69 operators for which cleaned, verified data is available*

Specification 4a: Relationship between average savings and bus patronage, based on the absolute £ saving

First, this approach aims to identify whether there is a causal link between the saving offered on eligible single tickets and changes in bus patronage prior to and after the cap. This is tested by regressing the observed patronage across all ticket types and all operators on the level of savings on capped single tickets at the operator level.

The first specification uses the absolute £ value of the operator-level saving to explain the observed change in patronage, controlling for other factors that may increase patronage over and above the fare saving.

$$ln\_ptrng_{jt} = \alpha + \beta_t month_t + \gamma(post_t * avg\_saving_j) + \delta_j operator_j + \theta_1 strike_{jt} + \theta_2 ln\_service\_kms_{jt} + \varepsilon$$

The variables above can be interpreted as follows:

- *ptrng:* Natural log of the total bus patronage across all ticket types across the sample operators
- *avg_saving:* The actual pence saving to single capped tickets prior to and following the implementation of the cap, for each operator. This is the variable of interest to identify a causal link between the average savings and the observed changes in bus patronage.
- *operator:* Dummy indicator for each operator, to capture any time-invariant operator-level differences in patronage trends

- *strike:* Dummy indicator for days with bus strike action
- *ln_service_kms:* Natural logarithm of scheduled service kilometres for each operator, for each month in the dataset. This is included as a control for operator size.
- *month$_j$:* Monthly time dummies

Table 17 Specification 4a

Explanatory variable	Coefficient	% change	95% Confidence Interval
post*avg_saving	**0.0012*** **	**0.12%**	**[0.001,0.017]**
service kilometres	0.922***	0.92%	[0.756, 1.088]
strike	-0.070*	-6.7%	[-0.151, 0.011]
constant	-0.601		[-2.736, 1.525]
Operator dummies	INCLUDED		
Monthly time dummies	INCLUDED		

Source: Frontier analysis of Ticketer data and DfT bus patronage

*Note: * - Significant at the 10% level*
*** - Significant at the 5% level*
***** - Significant at the 1% level*
The table only reports a subset of estimates, for ease of visual interpretation

The coefficients can be interpreted as follows:

- γ: The coefficient on the 'post*avg_saving' variable shows the percentage change in bus patronage for every 1p increase in saving. **The analysis suggests that for every 1p increase in saving, observed bus patronage increased by 0.12%.**
  - Note that, while this analysis could have been undertaken at the £ level, the scale of the observed savings (between 15p and £4.60) suggests that such an assessment would not reflect the actual scope of the likely savings.
  - It is also important to note that any relationship between observed saving and patronage is unlikely to be linear (i.e. a 50p saving from £2.50 to £2 is unlikely to elicit the same change in behaviour as a 50p saving from £8 to £7.50). As such, these estimates should not be extrapolated beyond the context of this £2BFC scheme and are only interpretable locally.
- θ_1: The coefficient on the strike variable is negative and statistically significant, suggesting that patronage in months where the operator had ongoing strike action was significantly lower than months where there was no strike action.
- All coefficients above are statistically significant at the 5% confidence level.

Specification 4b: Relationship between average savings and bus patronage, based on the percentage saving relative to the pre-cap fare

The next specification regresses the (log of the) observed bus patronage on the percentage saving in the fare relative to the pre-cap baseline, at the operator level. While Specification 4a presented the impact of an absolute saving on patronage, Specification 4b contextualises this pound saving relative to the average pre-cap fare.

$$ln\_ptrng_{jt} = \alpha + \beta_t month_t + \gamma(post_t * pct\_saving_j) + \delta_j operator_j + \theta_1 strike_{jt} + \theta_2 ln\_service\_kms_{jt} + \varepsilon$$

Here, *pct_saving* is the percentage change in the fare relative to the pre-cap baseline. This variable is presented in percentage points.

Table 18 Specification 4b

Explanatory variable	Coefficient	% change	95% Confidence Interval
post*pct_saving	**0.0056*** **	**0.56%**	**[0.002,0.009]**
service kilometres	0.927***	0.93%	[0.742, 1.112]
strike	-0.069*	-6.7%	[-0.152, 0.136]
constant	-0.714		[-3.091, 1.662]
Operator dummies	INCLUDED		
Monthly time dummies	INCLUDED		

Source: Frontier analysis of Ticketer data and DfT bus patronage

*Note: * - Significant at the 10% level*
*** - Significant at the 5% level*
**** - Significant at the 1% level*
The table only reports a subset of estimates, for ease of visual interpretation

The coefficients can be interpreted as follows:

- γ: The coefficient on the 'post*pct_saving' variable shows the percentage change in bus patronage for every 1 percentage point increase in saving. **The analysis suggests that for every 1 percentage point increase in saving, observed bus patronage increased by 0.56%.**
  - As above, these estimates should not be extrapolated beyond the context of this £2BFC scheme and are only interpretable locally, given that the same absolute saving can have varying patronage impacts depending on the scale of the saving relative to the baseline fare.
  - For example, a reduction in the fare from £3 to £2 gives rise to a 33% saving and, subsequently, an 18.5% increase in bus patronage.[63] However, a similar £1 reduction

[63] 0.56% * 33% = 18.5%

in the fare from £4 to £3 gives rise to a 25% saving and, therefore, a 14% increase in bus patronage.[64]

- θ_1: The coefficient on the strike variable is negative and statistically significant, suggesting that patronage in months when the operator had ongoing strike action is significantly lower than months when there was no strike action.
- All coefficients above are statistically significant at the 5% confidence level.

The econometric analysis therefore suggests the existence of a positive causal relationship between the saving implied by the implementation of the £2BFC, and2BFC and observed increases in total bus patronage.

D.3 Supplementary analysis: Regional variation in observed patronage trends

Sections 5.2 and D.1 of this report sought to estimate the impact of the £2BFC on aggregate patronage to date. However, these observations can be further disaggregated at the regional level to identify any differential impacts of the fare cap across the eight regions of England and Wales.

It should be noted, however, that any impacts of local bus interventions will be amplified when looking at regional results compared to aggregate patronage. In addition, as discussed above, Ticketer data is only available at a regional level. This means that it is not possible to adjust for the impacts of local fare schemes which are typically delivered at an LTA level. The impacts of these fare schemes are likely to be greater in this more disaggregated analysis than in the aggregate patronage analysis.

As such, given the potential lack of robustness of this analysis, as well as the general limitations of the data, this analysis is merely presented as supplementary analysis and does not form part of the key results presented in this report.

Results from trend analysis

As observed in the national trends, bus patronage in each of the eight regions saw a material increase from 2022 to 2023. However, the scale of this increase varied considerably across the regions. The observed increase in patronage was the largest in the East of England (at 18% to 20%) and the lowest was in the North East (at 4% to 7%).

The increase in patronage at the regional level shows some differences between the operator and Ticketer datasets. However, this is likely due to the different coverage of the two datasets as well as the difficulty in mapping a bus operator to a given region, as some operators operate routes across multiple regions. As noted above, this could also represent

64 0.56% * 25% = 14.0%

varying impacts of local bus interventions as picked up by the different datasets as a result of the variation in their coverage.

The observed variation in the patronage increase may reflect a number of underlying differences between the regions. For instance, they may represent a relatively lower saving on single tickets as a result of the fare cap (i.e. relatively lower average prices on single tickets prior to the introduction of the fare cap). Table 19 ranks each of the regions based on the percentage increase in bus patronage (as reported in the operator data) and the percentage decrease in the price of an average single ticket. The table suggests that there may indeed be some correlation between the two measures as the regions with the highest increase in patronage, namely the South East, the South West, the East of England and the East Midlands, are also the four regions that exhibited the largest reduction in the price of single tickets. The relationship between the observed savings and the changes in patronage are explored through econometric methods in Section 6.1.

Table 19 Observed increase in patronage and saving on single tickets

Region	% increase in patronage	% saving on single tickets
South East	1	2
South West	2	4
East of England	3	1
East Midlands	4	3
Yorkshire and The Humber	5	7
West Midlands	6	5
North West	7	8
North East	8	6

Source: Operator data

Note: This table includes all single tickets, regardless of their pre-cap price when calculating the average saving. A lower rank indicates a higher increase in patronage and a higher saving.

The variation in the change in bus patronage may also reflect more structural differences between the regions, such as the availability of bus services and whether bus use is already at capacity (i.e. individuals that wish to travel on buses already did so prior to the implementation of the cap, such that there was limited potential for the cap to boost further bus use).

Results from quasi-experimental analysis

Following on from the assessment above, it is also possible to disaggregate the patronage across the rest of England into its eight constituent regions (excluding London) and control for

regional variations in patronage when estimating the average impact of the fare cap on patronage across England.

As above, it is important to first establish whether the eight regions and London had parallel trends in patronage prior to the fare cap to ensure that patronage in London is a robust approximation of the patronage in each of the regions.

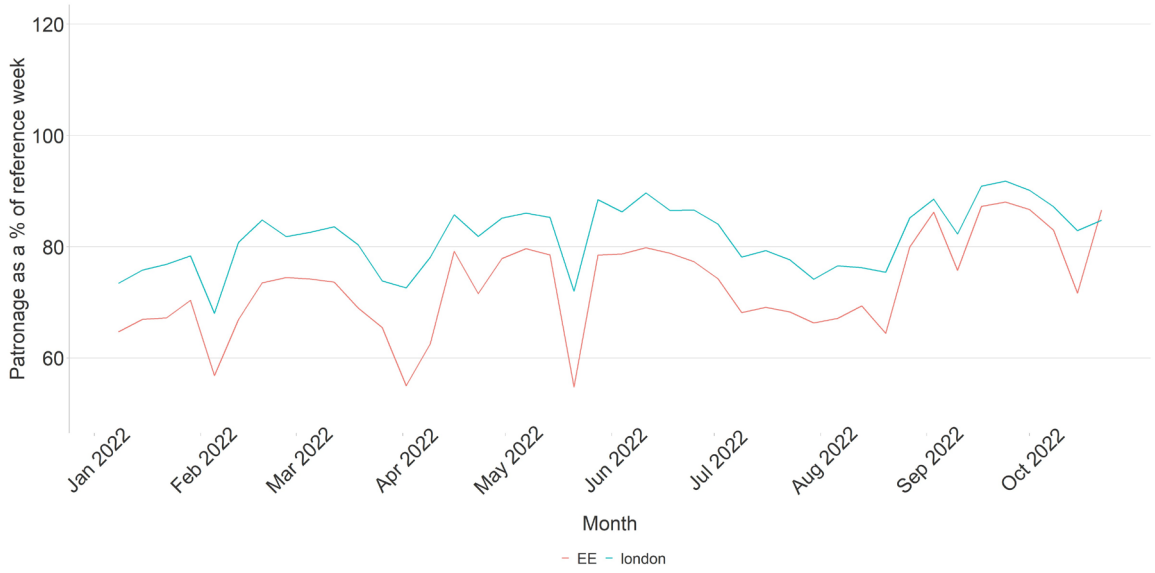
Following a similar approach to the national level data, the figures below present, in turn, the 2022 trends in patronage for each of the eight regions compared to London (as a proportion of their respective reference levels) (Figure 42 to Figure 49).

On the basis of a visual inspection, the regions are assigned to three categories based on their pre-cap comparability to London. These are:

- Category 1 (high comparability): East of England, South West, South East
- Category 2 (average comparability): North East, West Midlands
- Category 3 (low comparability): East Midlands, North West, Yorkshire and The Humber

This categorisation implies that the coefficients associated with the regions in Category 1 (and, to a lesser extent, Category 2) are likely to be more robust than those associated with Category 3, because the latter regions were already showing a variation to London patronage prior to the cap and, therefore, attributing any differences in post-cap patronage to the £2BFC would be less reliable.

Figure 42 Patronage in London and the East of England across January to October 2022, as a proportion of pre-COVID levels



Source: *Ticketer, DfT Bus patronage*
Note: *The data is aggregated at a weekly level to address daily volatility and help with visual interpretation*

Figure 43 Patronage in London and the South East across January to October 2022, as a proportion of pre-COVID levels

Source: *Ticketer, DfT Bus patronage*
Note: *The data is aggregated at a weekly level to address daily volatility and help with visual interpretation*

Figure 44 Patronage in London and the South West across January to October 2022, as a proportion of pre-COVID levels

Source: *Ticketer, DfT Bus patronage*
Note: *The data is aggregated at a weekly level to address daily volatility and help with visual interpretation*

Figure 45 Patronage in London and the North East across January to October 2022, as a proportion of pre-COVID levels

Source: *Ticketer, DfT Bus patronage*
Note: *The data is aggregated at a weekly level to address daily volatility and help with visual interpretation*

Figure 46 Patronage in London and the West Midlands across January to October 2022, as a proportion of pre-COVID levels

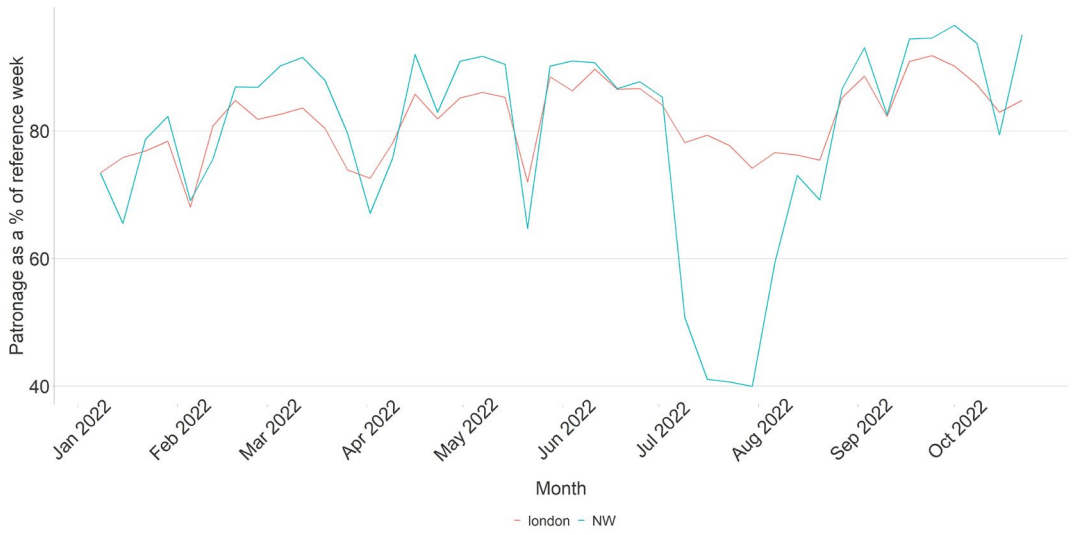
Source: *Ticketer, DfT Bus patronage*
Note: *The data is aggregated at a weekly level to address daily volatility and help with visual interpretation*

Figure 47 Patronage in London and the East Midlands across January to October 2022, as a proportion of pre-COVID levels

Source: *Ticketer, DfT Bus patronage*

Note: *The data is aggregated at a weekly level to address daily volatility and help with visual interpretation*

Figure 48 Patronage in London and the North West across January to October 2022, as a proportion of pre-COVID levels



Source: *Ticketer, DfT Bus patronage*

Note: *The data is aggregated at a weekly level to address daily volatility and help with visual interpretation*

Figure 49 Patronage in London and Yorkshire and the Humber across January to October 2022, as a proportion of pre-COVID levels

Source: *Ticketer, DfT Bus patronage*
Note: *The data is aggregated at a weekly level to address daily volatility and help with visual interpretation*

Specification 5: London compared to the each of the other eight regions in England

The specification below aims to estimate a separate incremental impact of the £2BFC on aggregate patronage to date, for each of the eight regions.

$$ln\_ptrng_{jt} = \alpha + \beta_t month_t + \delta_j region_j + \gamma_j(post_t * region_j) + \theta strike_{jt} + \mu weekday_t + \varepsilon$$

The specification includes eight γ_j coefficients (one for each region) which separately provide an estimate of the treatment effect for each region.

Table 20 Specification 5

Explanatory variable	Coefficient	% change	95% Confidence Interval
post*EE	**0.102*** **	**10.8%**	**[0.065, 0.140]**
post*EM	**0.031***	**3.2%**	**[-0.004, 0.066]**
post*NE	**-0.028**	**-2.8%**	**[-0.068, 0.013]**
post*NW	**0.082*** **	**8.6%**	**[0.043, 0.121]**
post*SE	**0.062*** **	**6.4%**	**[0.032, 0.091]**

Explanatory variable	Coefficient	% change	95% Confidence Interval
post*SW	**0.061*** **	**6.3%**	**[0.031, 0.092]**
post*YH	**0.018**	**1.8%**	**[-0.011, 0.047]**
post*WM	**0.057*** **	**5.9%**	**[0.012, 0.102]**
strike	-0.320***	-27%	[-0.415, -0.225]
weekday	-0.139***	-13.0%	[-0.150, -0.129]
constant	4.434***		[4.409, 4,459]
Monthly time dummies	INCLUDED		
Region dummies	INCLUDED		

Source: Frontier analysis of Ticketer data and DfT bus patronage

*Note: * - Significant at the 10% level*
*** - Significant at the 5% level*
**** - Significant at the 1% level*
The table only reports a subset of estimates, for ease of visual interpretation

- μ: The coefficient on the 'weekday' variable suggests that, on weekends, bus patronage was 13% closer to the January 2020 weekend reference levels than it was on weekdays, over the entire period.
- θ: The coefficient on the 'strike' variable is statistically significant when including regional dummies, which suggests that, on days where there was strike action, there is evidence that bus patronage was 27% lower than days without strike action.
- The γ_i coefficients can be interpreted as the additional growth in patronage experienced in each of the fare cap regions over and above that seen in London. The analysis suggests that, following the introduction of the £2BFC in 2023, increase in bus patronage as a result of the £2BFC was highest in the East of England (10.8%), compared to the average impact of 4.9%.
  - The analysis also suggests that the recovery in bus patronage was actually lower by 2.8% in the North East relative to London. However, this result is not statistically significant, suggesting that there is limited evidence of any impact of the £2BFC on bus patronage in the North East.
  - Similarly, the coefficient on Yorkshire and the Humber is not statistically significant, suggesting limited evidence of any impact of the £2BFC on bus patronage.

All other coefficients above are statistically significant at the 5% confidence level.

While the direction of the impact in the North East is counter to expectations, this is consistent with the relatively muted increase in patronage observed in the North East as set out in the trend analysis.

Table 21 Regional variation in the impact of the £2BFC on bus patronage

Region	Suitability of DiD analysis	Impact of £2BFC
East of England	High	10.8%
South East	High	6.4%
South West	High	6.3%
West Midlands	Medium	5.9%
North East	Medium	Not statistically significant at the 5% confidence level
North West	Low	8.6%
East Midlands	Low	3.2%
Yorkshire and the Humber	Low	Not statistically significant at the 5% confidence level

Source: Ticketer data

D.4 Limitations of the econometric analysis

While the analysis above aims to identify a robust approach to estimate the impact of the £2BFC on bus patronage to date, there are certain limitations of the data and the methodology that are important to note in order to contextualise the results presented. These limitations are categorised below as follows:

- General limitations across all analyses
- Limitations of the London comparison (i.e. based on the Ticketer dataset)
- Limitations of the average savings analyses (i.e. based on the operator monitoring data)

General limitations

Other control variables

To identify a causal impact of a treatment under a DiD setting, it is important to ensure that there are no external factors that could affect the outcome of interest (patronage) over and above the treatment (the introduction of the fare cap). As such, it is generally considered best practice to include 'control' variables that could affect the outcome to ensure that the treatment effect is not erroneously picking up the effect of these factors.

Bus patronage appears to fluctuate materially with a number of demographic and economic factors, such as age, population density and disposable income per capita.

While it would be appropriate to include such controls in the analysis, given the recency of the time period under consideration, such information is not yet available via official sources. The analysis attempted to implicitly control for these by including regional and monthly dummies (or 'fixed effects'), although this is likely to only be an approximation.

If it was the case that the proportion of individuals over the age of 65 in, say, the East of England demonstrated a larger growth from 2022 to 2023 than it did in London, some of the reported incremental increase in bus patronage may be a result of this demographic change rather than the introduction of the £2BFC.

Other ongoing bus schemes

Another source of non-fare cap-related change in bus patronage may be the presence of other bus schemes that may also be affecting patronage. For example, the ongoing BSIP interventions as well as other LTA-specific fare schemes may have an impact on bus patronage over and above the £2BFC.

If it was the case that a particular region or operator also had another bus-related scheme in place, this analysis could over-attribute any observed changes in patronage to the £2BFC.

Limitations of the Ticketer dataset

In addition to the general limitations set out above, the Ticketer dataset, used for the London DiD analyses, has some further limitations. These are set out below.

The unit of measurement of the Ticketer data affects the interpretation of results

The Ticketer Bus Open Data Service (BODS) was originally introduced in early 2020. It measures, among other metrics, total bus patronage at a daily level, and reports it relative to the bus patronage observed on the same day of the week in the third week of January 2020.

The dataset does not present the absolute number of journeys on a day but presents the relative level of journeys on that day relative to a reference point.[65] As such, the interpretation of estimates based on the use of Ticketer data can be challenging as it cannot simply be interpreted as a percentage increase in absolute patronage but as a change in an index of patronage.

The Ticketer dataset is the best available data but has wider coverage than the £2BFC eligible patronage

The Ticketer dataset has a wide coverage. In particular:

[65] For example, if the value for Monday 12 June 2023 was 0.78, this would be interpreted as 'Patronage on Monday 12 June 2023 was 78% of the patronage on Monday 13 January 2020'.

- The dataset is not limited to only those routes and fares that were eligible for the £2BFC and includes other information, such as patronage on concessionary fares and ineligible routes.
- Additionally, the dataset reports patronage across operators that have not participated in the scheme. It does not include some large operators (which represent approximately 30% of total journeys).

As a result, any observed changes in patronage may overstate or understate the impact of the fare cap, as the data does not clearly distinguish between that portion of patronage affected by the cap and that portion of patronage unaffected by the cap.

The parallel trends criterion is not satisfied for all regions individually

Although the parallel trends criterion holds at the national level, it does not hold at the individual region level for all regions.

As this is an important pre-requisite for the robustness of a DiD analysis, the estimates associated with the regions that have limited comparability with London may be less reliable.

However, in the absence of any other viable control regions (i.e. regions where the fare cap was not implemented), London presents the most appropriate benchmark.

Limitations of the operator dataset

Similarly, in addition to the general limitations set out above, the operator monitoring and evaluation dataset used for the average saving analyses has some limitations. These are set out below.

Operator-level variation in implementation of the fare cap

Different operators responded differently to the introduction of the £2BFC in January 2023. While most operators simply capped their existing single tickets at £2, some operators introduced new services in 2023, while others also optionally offered capped return tickets at £4 (i.e. £2 per leg).

To ensure comparability and consistency across the sample, this analysis:

- **Only considers services that were existing in 2022:** This is because including patronage on new services introduced in 2023 could artificially inflate bus patronage relative to 2022, as the increase in patronage would likely be a result of service availability rather than the reduction in the fare. As the patronage on new services is just over 1% of patronage on existing services, this is unlikely to have an impact on overall conclusions. However, it is possible that excluding these services could understate the impact of the fare cap on patronage, as patronage on these new services may include an element of substitution away from existing services as a result of the fare cap.

- **Only considers the sales of capped single tickets:** As mentioned above, some operators optionally introduced capped return tickets by offering two legs at £2 each. While any impact of this offer on bus patronage is likely to be fare driven, they have not been included as part of the 'capped' sales, as, strictly speaking, the fare cap grant only extends to single tickets. As such, this impact evaluation of the scheme considers capped single ticket sales only. However, it is possible that the exclusion of these capped return tickets may understate the impact of capped fares on patronage.

The data is aggregated across all routes

One option for undertaking a DiD analysis using the operator monitoring and evaluation data would have been to compare patronage on eligible routes prior to and after the cap to patronage on ineligible routes prior to and after the cap. This data was not available.

Annex E CBA technical annex

This annex describes the assessment of costs and benefits that informed the VfM evaluation. It discusses the approaches taken to monetise some of the impacts, where this was possible, and the what-if analysis used to account for non-monetised impacts.

E.1 Estimation of baseline, modal substitution and generated trips

As discussed in section 8.4, trips can be categorised into three groups: baseline trips, modal substitution trips and generated trips. Benefits differ across each of these trip types and therefore the allocation of aggregate trips across these three categories is a key assumption. The approach taken is set out below.

Estimation of baseline and incremental journeys

DiD analysis was carried out using Ticketer data to estimate the incremental impact of the £2BFC. Between January and October 2023, patronage reported in Ticketer increased by 13%. Within the context of the overall 13% increase, indicative analysis suggests that the £2BFC led to a 5% increase in patronage in England (excluding London) for the period of January to October 2023 compared to the prior year. The remaining patronage change is assumed to have occurred even without the £2BFC, for example due to post-Covid recovery.

This split of baseline and incremental journeys from the analysis of Ticketer data was then applied to the increase in patronage observed in the operator data to estimate the absolute number of baseline and incremental journeys for the VfM analysis.

Estimation of modal shift and trip generation

Incremental journeys can be split into two categories: trips that would have been taken with another mode of travel in the absence of the £2BFC (generated trips) and trips that would not have been taken at all without the £2BFC (modal shift trips).

Once incremental journeys were estimated using the approach discussed above, these were then split into modal shift and trip generation in three ways:

- Survey data. Survey respondents who reported that they had made additional bus trips since the launch of the £2BFC were asked whether these were journeys they would not have made at all if the £2 fare cap had not been offered, journeys they would have made using a different type of transport had the £2BFC not been offered, or a mix.

- TAG assumptions. The TAG guidance has standardised assumptions on the share of new trips that are modal shift compared to trip generation.[66]
- TAG sensitivities. The TAG guidance also sets out a set of sensitivities for the split of new trips into modal shift and trip generation.[67]

These assumptions are set out in the table below.

Table 22 Modal shift vs. trip generation assumptions

Trip type	Survey	TAG	TAG sensitivity
Generated	43%	14%	21%
Modal shift	53%	86%	79%

E.2 Identification of benefits

The DfT Value for Money framework (page 14) states that '…for the purposes of a Department for Transport value for money assessment, impacts refer to the positive and negative impacts of a proposal on the UK public. Impacts include effects on the economy, environment, society, and public accounts'.[68]

For the cost–benefit analysis (CBA) of the £2BFC, several impacts were identified on the basis of the theory of change developed for the scheme. The decision of whether to monetise each impact or not was based on two key factors:

- **Feasibility**. Is there sufficiently robust data available to quantify the impact without the need to make a large number of assumptions, particularly where those assumptions are not well established in existing research?
- **Proportionality**. Is it proportionate to monetise this impact? Is the impact expected to have a material impact on the overall assessment of VfM and how resource intensive is it to quantify?

It is important to note that just because an impact was not monetised does not mean that it should be given less consideration in the overall VfM assessment. Where impacts were not monetised, 'what-if' analysis was carried out to understand how large those impacts would need to be to materially impact the overall VfM metric and the likelihood of this being true.

66 DfT (2022). TAG Unit A1.3 User and Provider Impacts. Accessed at: https://assets.publishing.service.gov.uk/media/63174538d3bf7f792bcfb1a6/tag-unit-a1.3-user-and-provider-impacts.pdf

67 ibid

68 DfT (2015). Value for money framework. Accessed at: Value for money framework (publishing.service.gov.uk)

Table 23 Benefits of the £2BFC considered for VfM assessment

Impact	Type
User benefits: Baseline, modal shift and generated trips The change in the net value of trips due to the £2BFC. This encompasses benefits for passengers on baseline, modal shift and generated trips.	Established monetised impact
Change in GHG emissions: Modal shift Where travellers have chosen to make their trips using the bus rather than a private form of transport due to the £2BFC, this leads to avoided GHG emissions.	Established monetised impact
Change in other marginal external costs: Modal shift Where travellers have chosen to make their trips using the bus rather than a private form of transport due to the £2BFC, this leads to avoided vehicle kms and associated external costs of congestion, infrastructure (damage and repair), accidents, local air quality, noise and indirect taxation. Impacts on GHGs are excluded to avoid double counting.	Established monetised impact
Affordability: Baseline trips The wellbeing impacts associated with how travellers choose to use the money they have saved as a result of the £2BFC on baseline trips	Non-monetised

Health impacts were considered but ultimately excluded from the CBA. While there is evidence to suggest that encouraging the use of public transport can enable an increase in physical activity and associated health impacts,[69] this has not been explicitly quantified for two reasons. First, the quantification of the value of generated trips is based on the value that travellers place on the activity they undertake in the destination of their trip, and this could include physical activities. Quantifying the physical health impacts could lead to double counting. Second, the £2BFC is a short-term intervention that is still ongoing, whereas health impacts often require a period of sustained behavioural change. There is limited evidence on whether short-term changes in travel behaviour will persist if the scheme ends and it is therefore not appropriate to include these impacts at this point in time.

69 National Institute for Health and Care Research. Enabling active travel and public transport. Accessed at: https://evidence.nihr.ac.uk/how-local-authorities-can-reduce-obesity/report/enabling-active-travel-and-public-transport/

E.3 Approach to estimating user benefits

Two approaches were used to estimate user benefits: the Rule of a Half, which is a standard transport appraisal approach in TAG; and the disaggregated approach. These are described in further detail below.

User benefits: Rule of a Half

The DfT's TAG standard approach to estimate transport user benefits (for all trip types) in the event of a reduction in generalised travel costs is the Rule of a Half. In a scenario where, pre intervention, there were T^0 trips with a cost per trip of P^0, and post intervention the cost fell to P^1 and demand increased to T^1, the change in the social benefit to the user ('consumer surplus') was ½ x $(P^0 – P^1)x(T^1 + T^0)$

For new trips, the change in generalised cost ($P^0 – P^1$) was based on data provided by operators on the average yield (cost per trip) for all tickets prior to and after the introduction of the £2BFC. Pre- and post-intervention trips ($T^1 + T^0$) were drawn from the econometric analysis.

User benefits: Disaggregated trips

TAG guidance sets out an alternative approach of disaggregating the benefits associated with non-work trips that would not take place in the absence of a specific bus intervention. For the purpose of this evaluation, it is assumed that all generated trips are non-work trips. This is because the number of trips using local buses and non-local buses (excluding buses in London) for business purposes was zero in 2022.[70]

Under the disaggregated approach, the user benefits for baseline trips, modal shift trips and generated trips needs to be evaluated individually.

Baseline trips

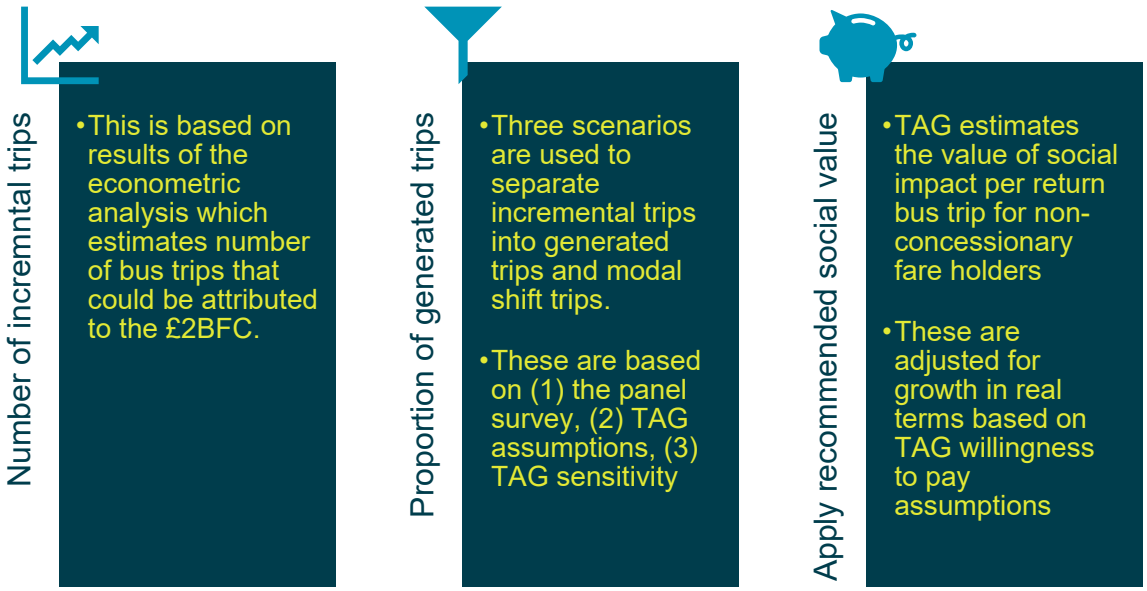
The user benefits for baseline trips were estimated in the same was as they were under the Rule of a Half. The number of baseline bus trips was estimated using the econometric analysis (i.e. trips that were made by bus that would have been made even without the £2BFC). This was multiplied by the *change* in the weighted average ticket yield (average fare per trip) to estimate the reduction in generalised travel costs for baseline trips. The change in weighted average ticket yield was calculated by comparing pre- and post-intervention weighted-average ticket yields. The ticket yields were estimated using data provided by operators on reported revenue and reported patronage for eligible services (and excluding concessionary trips).

[70] DfT (2023). NTS0409a: Average number of trips by purpose and main mode (trips per person per year): England 2002 onwards.

Generated trips

The 'social impact of bus travel' was used to quantify the value of generated trips due to the £2BFC. An overview of the approach is set out in Figure 50.

Figure 50 Summary of approach taken to monetise generated trips



Source: DfT TAG Unit A1.3, Appendix B

The number of incremental bus trips (i.e. the number of additional trips taken by bus that otherwise would not have been taken by bus – some could have been on other modes; some would be brand new trips) was estimated using results from the econometric analysis of Ticketer data and operator data. This excludes trips for concessionary fare holders (as they were assumed not to be directly affected by the £2BFC) and was divided in half to estimate the number of incremental return trips in line with TAG guidance.

This was then further disaggregated into mode shift trips, i.e. trips that would have been taken using a different mode in the absence of the £2BFC, and generated trips, i.e. trips that would not have been taken at all in the absence of the £2BFC.

TAG Unit A1.3 provides a set of standard assumptions for the proportion of trips that would not have happened in the absence of the bus, along with a recommended sensitivity. However, for the £2BFC, a survey was carried out in several waves to inform the evaluation. Survey respondents were asked whether they had taken additional bus trips since the launch of the £2BFC. Those who reported that they had done so were asked the following:

> Thinking about the additional bus journeys you undertake since the launch of the £2 bus fare cap for a single bus journey; are these…? [single select]
>
> *Journeys I wouldn't have made at all had the £2 bus fare cap not been offered*
>
> *Journeys I would have made using a different type of transport had the £2 Bus Fare Cap not been offered*
>
> *Some were journeys I wouldn't have made at all and some were journeys I would have made using a different type of transport*
>
> *Don't know*

This means that self-reported data was also available to inform an assessment of the share of incremental trips that (i) shifted from other modes or (ii) were brand new trips. Three approaches were therefore modelled for the estimation of this benefit:

- Survey: This used responses from Waves 2, 3 and 4 of the survey, using the question described above (Table 24). Those who reported that their additional trips were a mix of trip generation and modal substitution were pro-rated based across the two categories, based on those who reported that all their additional trips were either trip generation or modal substitution. Those who reported 'Don't know' were excluded from the final analysis.

Table 24 Thinking about the additional bus journeys you undertake since the launch of the £2 Bus Fare Cap for a single bus journey; are these...?

Response	Average proportion of survey respondents across Wave 2, 3 and 4
Journeys I wouldn't have made at all had the £2 Bus Fare Cap not been offered	33%
Journeys I would have made using a different type of transport had the £2 Bus Fare Cap not been offered	41%
Some were journeys I wouldn't have made at all, and some were journeys I would have made using a different type of transport	22%
Don't know	4%

Source: Survey

- TAG assumptions: This used the range of assumptions in TAG for the proportion of trips that would not have been travelled in the absence of bus.

- TAG sensitivity: This used the recommended TAG sensitivity for the proportion of trips that would not have been travelled, whereby trip generation is assumed to be 21%.[71]

These assumptions are shown in the table below.

Table 25 Modal shift vs. trip generation assumptions

Trip type	Survey	TAG	TAG sensitivity
Generated	43%	14%	21%
Modal shift	53%	86%	79%

The final step was to apply the social value per return trip. This represents the value to travellers of the activity they take at their final destination. This is estimated to be £8.17 for non-concessionary fare holders (2010 prices, 2010 values). The TAG Non-Work Value of Time (VOT) Growth assumptions were used to adjust this to 2023 values and 2010 prices (in line with TAG). These adjustments reflect changes in the willingness to pay for these non-working trips, which is assumed in the TAG guidance to increase with respect to real gross domestic product per capita. The financial cost of making that trip using a £2 fare (£4 return, assuming a person would take a trip and travel home again), adjusted to 2010 prices (to be comparable with the values in TAG, which are in 2010 prices), was then netted off and applied to the estimated number of generated trips to estimate the net social impact of generated trips (which was then adjusted for inflation to 2023 prices).

The main benefit of this approach is that it reflects the specific social value of bus trips. The limitation of this approach is that the value of time is not accounted for in the generalised cost of making those trips.

Modal shift trips

The user benefit of modal shift trips was not monetised under the disaggregated approach as this would require making a large number of assumptions, including assumptions on the length of modally shifted trips and the average cost of making those trips with an alternative mode of transport. Rather than relying on generalised assumptions, which may not reflect the actual characteristics of the specific modal shift trips for this scheme, the overall economic rationale of modal shift was considered qualitatively. It is reasonable to assume that people who choose to switch modes would only do so if they perceived the benefits of doing so to exceed costs, and therefore there should be a positive consumer surplus associated with these trips.

71 Mott MacDonald (2013). Monetising the social impact of bus travel. Accessed at: https://assets.publishing.service.gov.uk/media/5a7c24a6e5274a25a9140b82/how-to-calculate-social-benefits.pdf

E.4 Approach to estimating other benefits

GHG emissions: Mode shift

The number of incremental bus trips due to modal shift was estimated using a mix of econometric and survey data. This was then further disaggregated into originating modes in two ways:

- **TAG data**: TAG provides a set of standardised diversion factors for bus trips. This includes a proportion of journeys that are 'no travel', which are excluded and the remaining percentages rebased. The TAG assumptions do not split car into car as a driver and car as a passenger. As only journeys with car as a driver were used to monetise modal shift benefits, the proportion of originating trips attributed to car in the TAG assumptions (24%) was split into driver and passenger, using results from the survey.
- **Survey data:** Using answers from the survey to estimate the number of mode shift trips with car or van as a driver and taxi as originating modes. Survey respondents who said they had made more bus journeys since the introduction of the £2BFC were asked whether these were new or existing journeys. Those who said that they would have made those trips using a different form of transport were then asked what that type of transport would have been. The proportion of people who answered, 'car or van, as a driver' and 'taxi or private hire vehicle' was used to estimate the number of avoided car, van and taxi trips.

Assumptions using these two approaches are set out in the table below.

Table 26 Assumptions on originating modes: share of modal shift trips

Originating mode	Survey	TAG
Car: Driver	29%	18%
Taxi	13%	15%

Assumptions on the share of petrol, diesel and electric cars and the associated emissions factors were sourced from the TAG Databook. An assumption was made on the average km per trip using the average distance of local bus trips from the National Travel Survey.[72] The average for local buses was 8.37km. Avoided tonnes of CO2e were estimated using TAG Unit A3[73] and monetised using TAG data on carbon prices.[74]

[72] DfT(2023). NTS0303d: Average trip length by main mode (miles): England, 2002 onwards.

[73] DfT (2023). TAG Unit A3 environmental impact assessment.

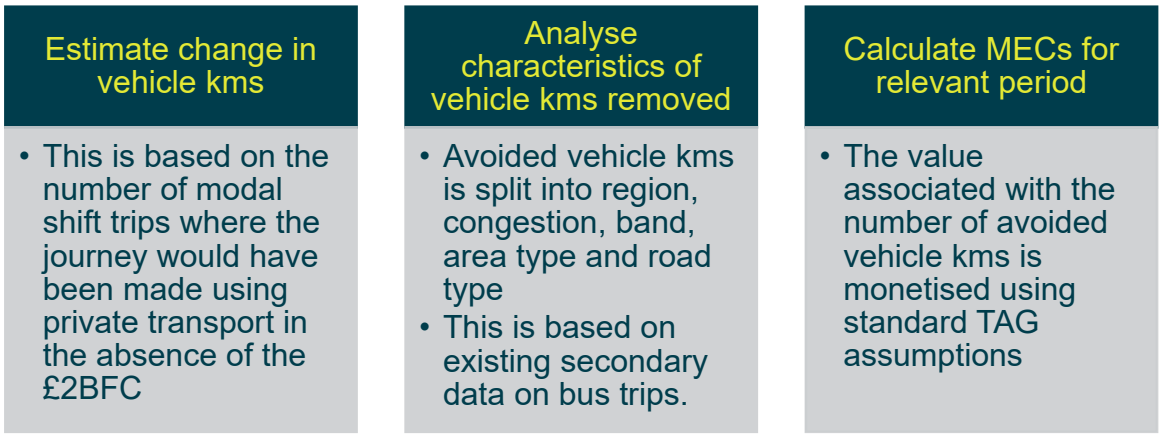
[74] DfT (2023). TAG Table A3.4.

A conservative approach was taken, which excluded trips that would have been taken with car or van as a passenger rather than a driver. This was because data is not available on the proportion of those car or van trips that are still being taken. However, 15%–18% (15% in Wave 2, 18% in Waves 3 and 4) of people who reported they would have made their additional bus trips using a different mode of transport in the absence of the £2BFC said this mode would have been car or van as a passenger. This means that benefits associated with mode shift may be slightly underestimated when using assumptions from the survey.

Other marginal external costs: Mode shift

The estimation of change in marginal external costs (MECs) was in line with TAG guidance. This is set out in Figure 51 below.

Figure 51 Overview of approach to estimating the change in MECs



Source: DfT (2023). TAG Unit A5.4 Marginal External Costs

The first step was to estimate the change in vehicle kms due to the £2BFC. The number of incremental bus trips due to modal shift was estimated using a mix of econometric and survey data. This was then further disaggregated into originating modes in two ways:

- **TAG data**: TAG provides a set of standardised diversion factors for bus trips.
- **Survey data:** Using answers from the survey to estimate the number of modal shift trips with car or van as a driver and taxi as originating modes.

Table 27 Assumptions on originating modes: share of modal shift trips

Originating mode	Survey	TAG
Car: Driver	29%	18%
Taxi	13%	15%

The number of avoided trips using car, van or taxi was then converted into avoided kms using the average length of a trip by local bus from the National Travel Survey 2022 (8.37km). This is a more conservative approach than using the average length of a trip for originating modes which are longer and would lead to a greater number of avoided vehicle kms (13.01km for car as a driver, 6.35km with taxi).

The number of avoided vehicle kms was then split across road types using road traffic estimates (TRA) data on the number of bus and coach kms by road type.[75] Assumptions from the TAG Databook on the proportion of total traffic in each congestion band for different road types were then used to map avoided vehicle kms by road type and congestion band.[76] This was multiplied by TAG assumptions on congestion, infrastructure, accident and local air quality by road type and congestion band to estimate total avoided MECs.[77]

A conservative approach was taken which excluded trips that would have been taken with car or van as a passenger rather than a driver. This was because data is not available on the proportion of those car or van trips that are still being taken. However, 15%–18% (15% in Wave 2, 18% in Waves 3 and 4) of people who reported that they would have made their additional bus trips using a different mode of transport in the absence of the £2BFC said this mode would have been car or van as a passenger. This means that benefits associated with modal shift may be slightly underestimated when using assumptions from the survey.

It was assumed that bus operators did not increase the frequency of services as a result of the £2BFC and therefore there were no additional bus vehicle kms that could increase MECs.

E.5 Approach to what-if analysis

Affordability: Baseline trips

One of the key strategic objectives for the £2BFC was to support the cost of living by reducing the cost of travel, particularly for low-income households. While the user benefits associated with baseline journeys quantify the direct financial saving for baseline trips, these savings may lead to knock-on benefits. Participants of the focus groups noted that they were able to spend this saved money on social occasions, making additional discretionary journeys for leisure and being able to purchase fresh, healthy food. Each of these examples will have an associated wellbeing impact that is not quantified as part of the user benefits.

As with all non-monetised benefits, the potential scale of these wellbeing impacts required to materially impact the VfM metric was tested using what-if analysis, drawing on HMT's

[75] DfT (2023). Road Traffic Statistics (TRA). Table TRA0204: Road traffic (vehicle kilometres) by vehicle type and road class in Great Britain, annual from 1993.

[76] DfT (2023) TAG Databook. A5.4.1 – Traffic by region, congestion band, area type & road type.

[77] DfT (2023) TAG Databook. A5.4.2 – Marginal external costs by road type and congestion band.

Wellbeing Guidance for Appraisal.[78] This approach used the concept of WELLBYs, defined as a one-point change in life satisfaction for one year. Each WELLBY has a value of £10,023 (2014 prices and values). This was adjusted to 2010 prices and values using the Consumer Price Index and the TAG Non-Work VOT Growth assumptions. This approach was chosen as the TAG Non-Work VOT Growth assumptions are used to adjust the values of the social impact of bus trips which also capture wellbeing effects.

The what-if analysis estimated the number of WELLBYs that would be required to make a material impact on the BCR and assessed how plausible this is, based on survey and focus group feedback.

78 HMT (2021). Wellbeing guidance for appraisal: Supplementary Green Book Guidance. Accessed at: https://assets.publishing.service.gov.uk/media/60fa9169d3bf7f0448719daf/Wellbeing_guidance_for_appraisal_-_supplementary_Green_Book_guidance.pdf

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